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Delgado, James P.
Balclutha interpreter's
guidebook



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BALCLUTHA

INTERPRETER'S GUIDEBOOK

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National Maritime Museum at
San Francisco, Hyde Street Pier

OCTOBER, 1979

BALCLUTHA: Interpreter's Guidebook

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SECTION ONE: THE SHIP

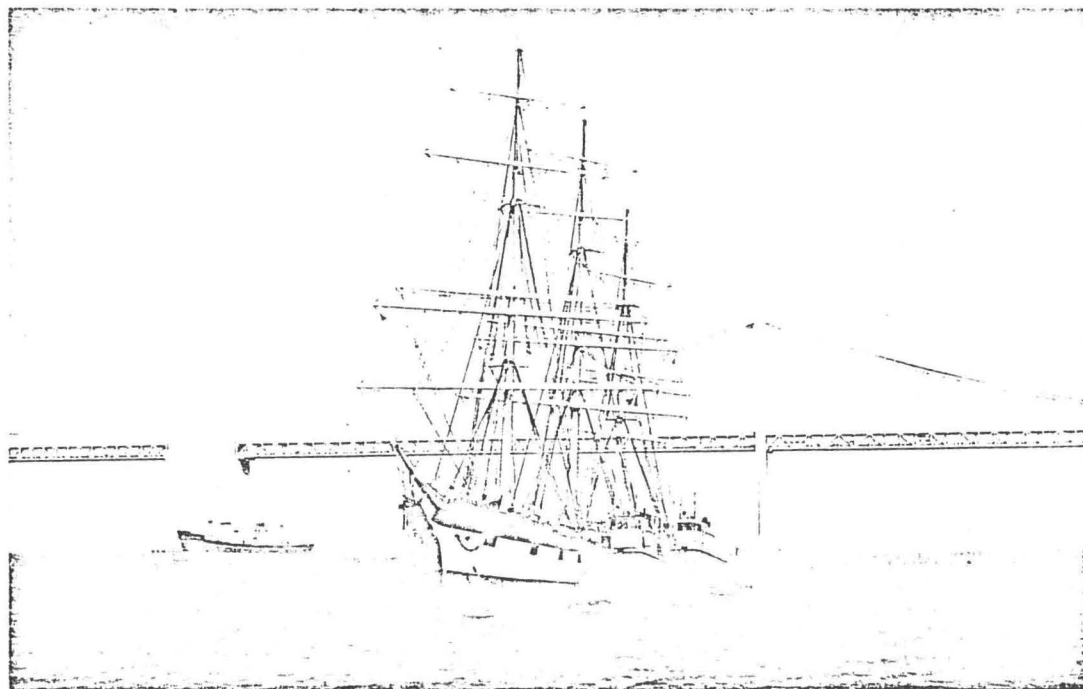
BALCLUTHA

1

THE SHIP:

The Balclutha is a three-masted, steel hulled, full rigged ship. Her decks are wood, as are her topgallant masts. All other spars are steel. The Balclutha's measurements are:

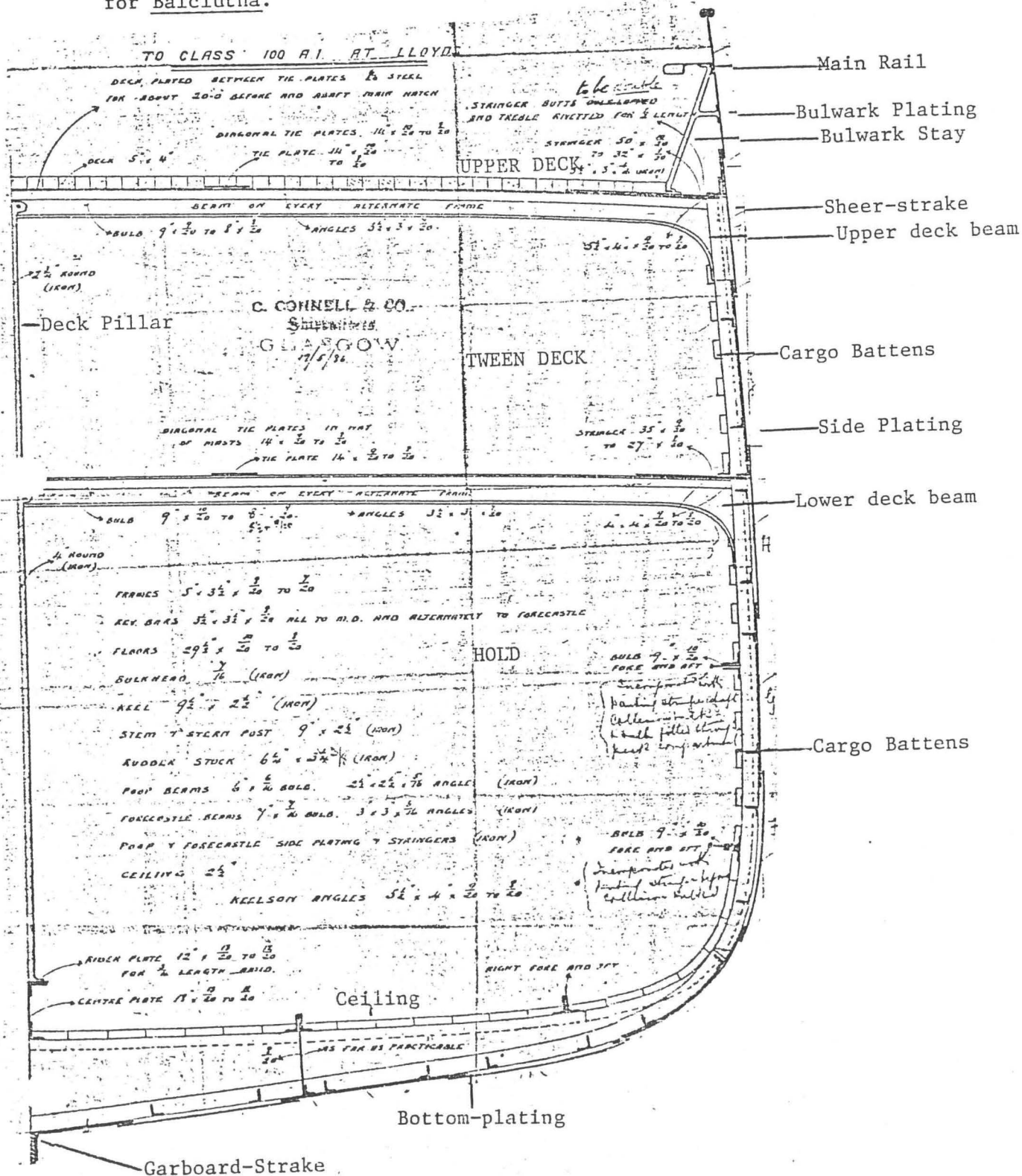
overall length:	301 feet
inboard length:	256 feet, 5 inches
beam:	38 feet, 6 inches
depth:	22 feet, 7 inches
gross tonnage:	1689 tons
height of mainmast:	145 feet



The Balclutha as Restored (1956)

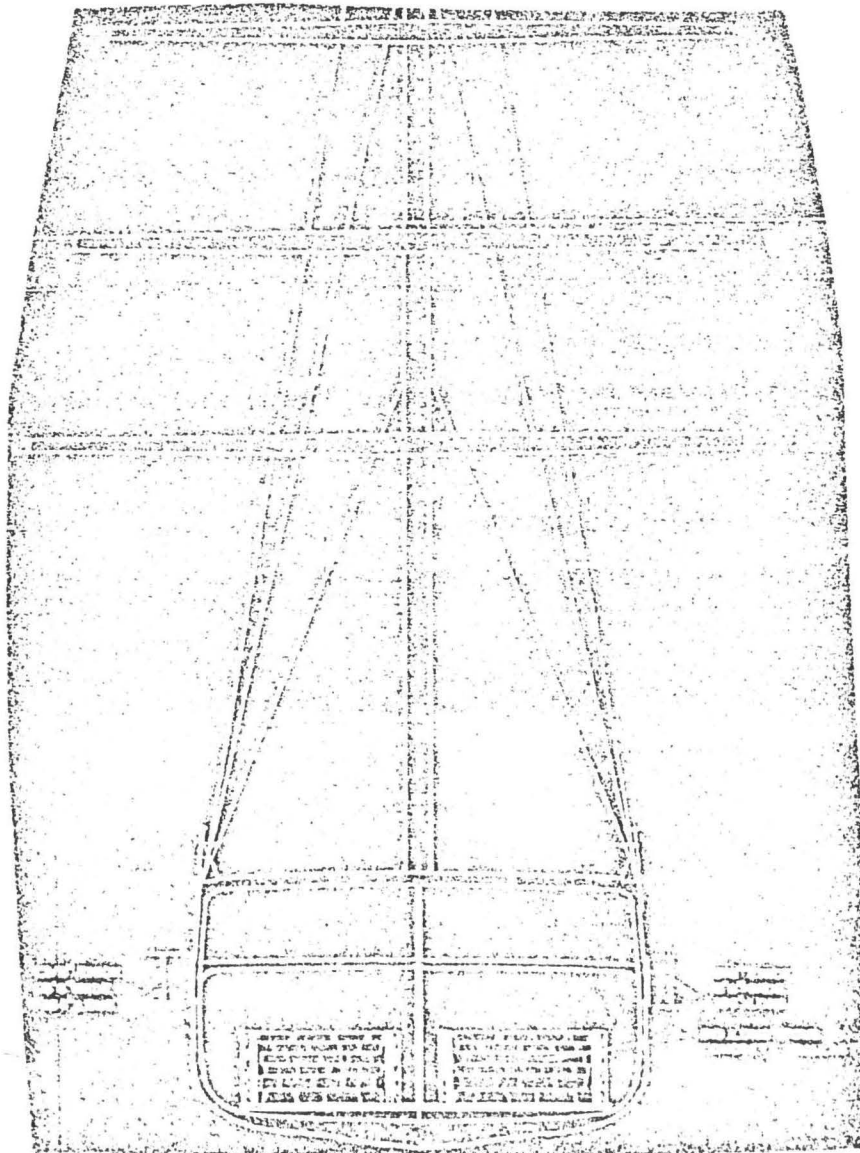
THE HULL:

This is an original construction document from Connell & Co. Shipyards for Balclutha.



BALLAST:

Ordinarily the cargo of the ship would serve as the ballast. However, when a ship sailed without cargo, rock, dirt, or sand would be stowed in the hold as "ballast." Now that the Balclutha no longer carries cargo, she carries 819 long tons of concrete block as her ballast. This is the ballast plan for Balclutha.

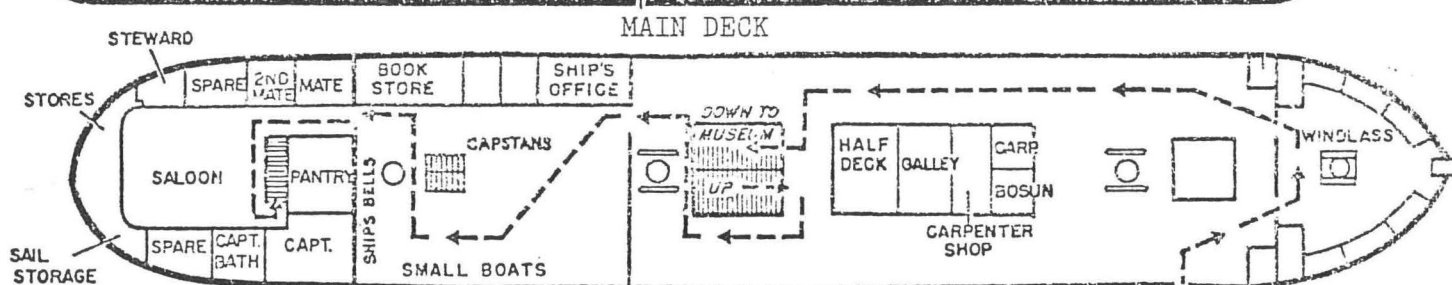
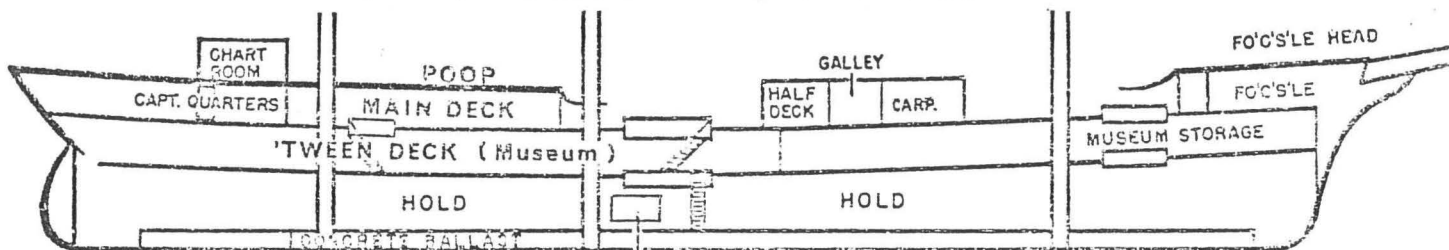


BALCLUTHA

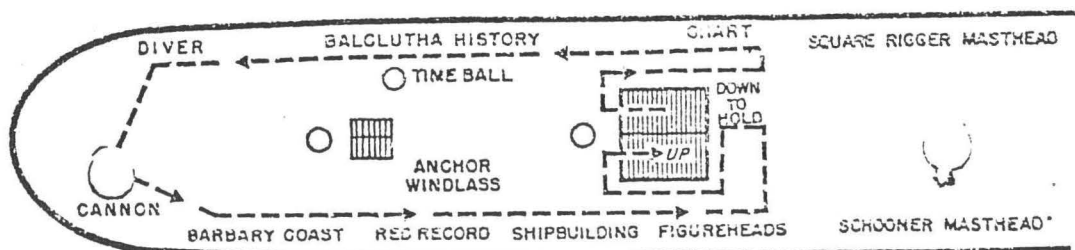
SHIP'S LAYOUT

This modern diagram details the decks and compartments of the Balclutha. Historically, the poop deck ended just abaft of the mizzen mast.

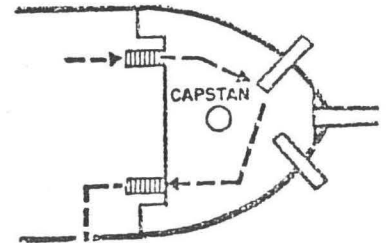
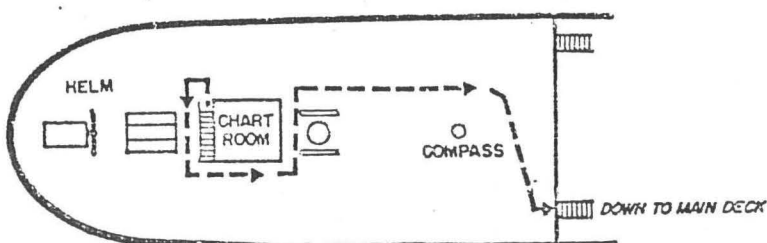
CROSS SECTION (LOOKING EAST)



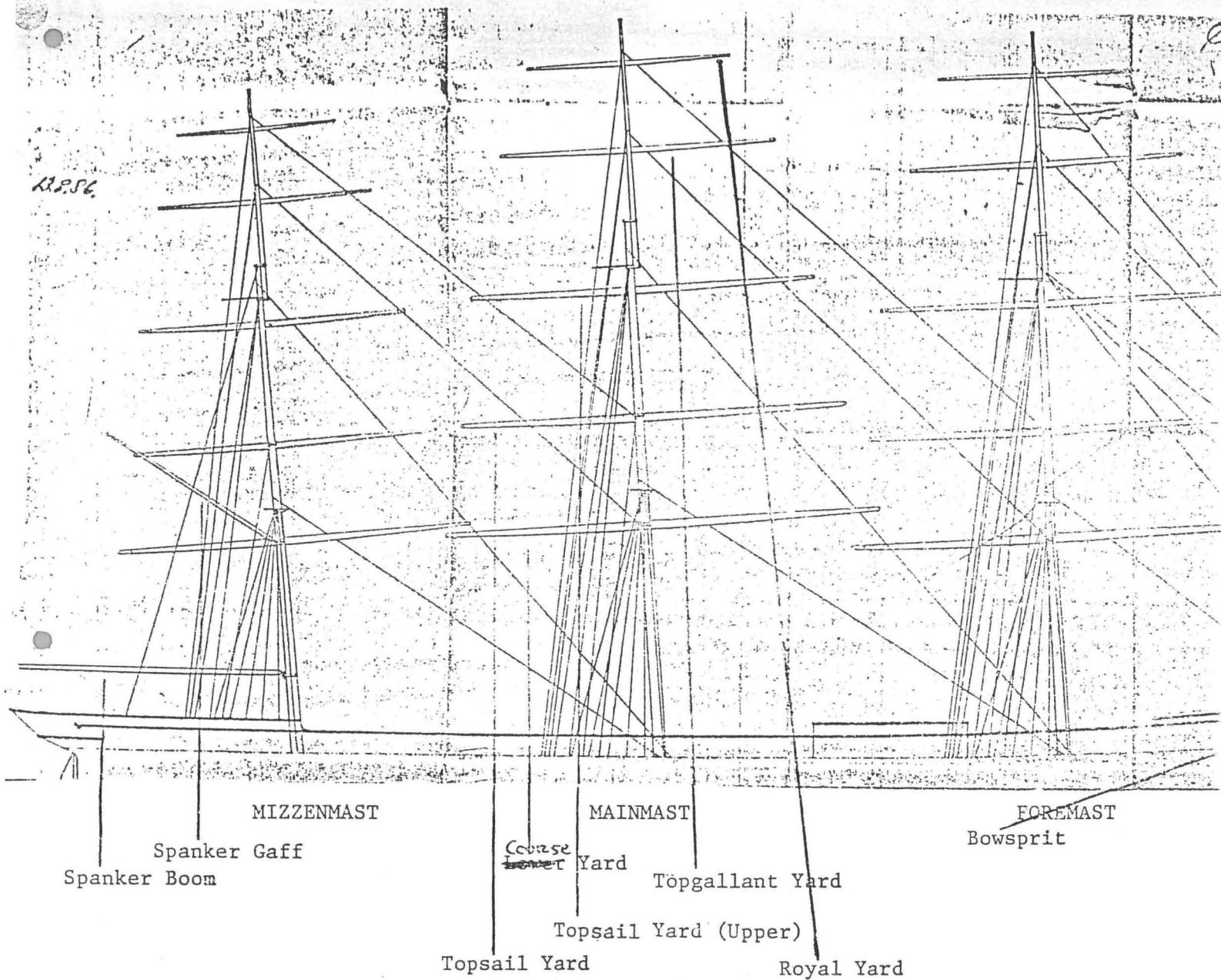
'TWEEN DECK



POOP DECK AND FO'C'S'LE HEAD



BALCLUTHA
MASTS AND SPARS

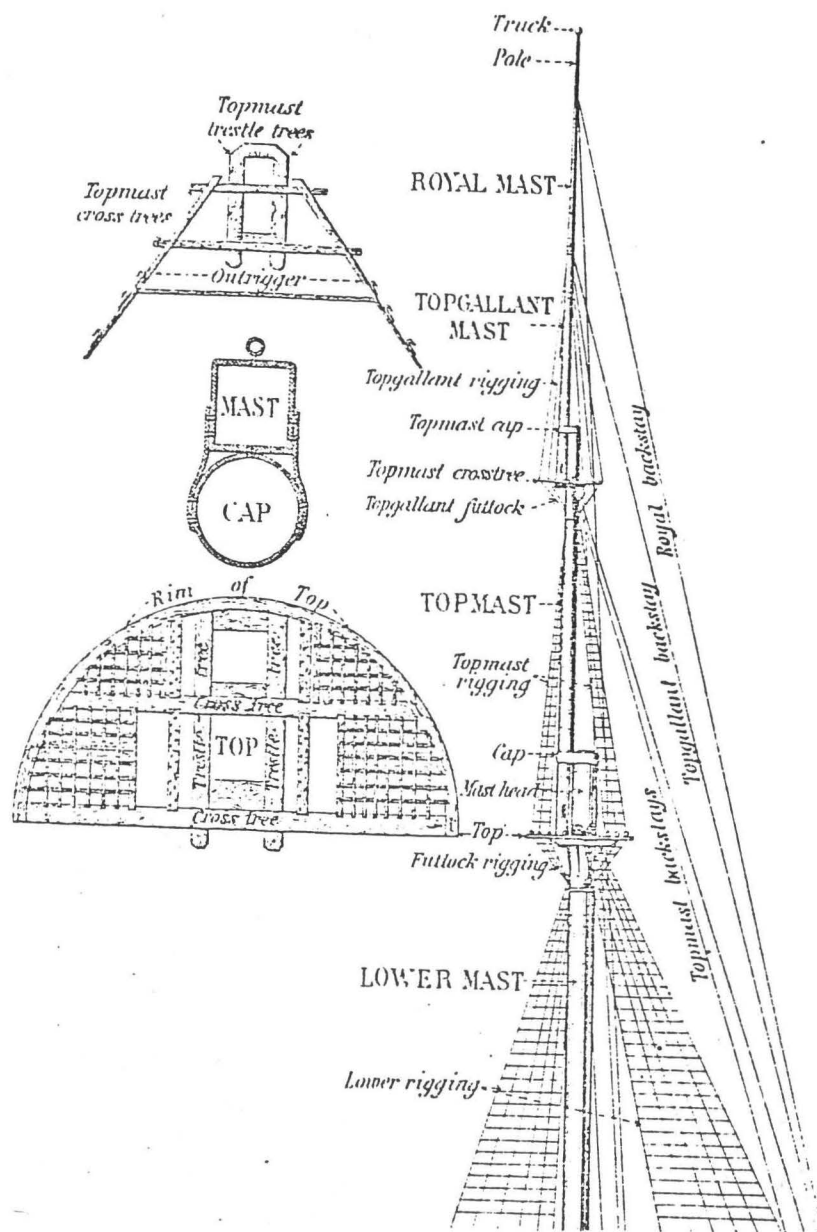


THE RIG OF A FULL RIGGED SHIP: From an original construction document for
Balclutha. Charles Connell and Company Shipyard, Glasgow, 1886.

BALCLUTHA

MAST NOMENCLATURE

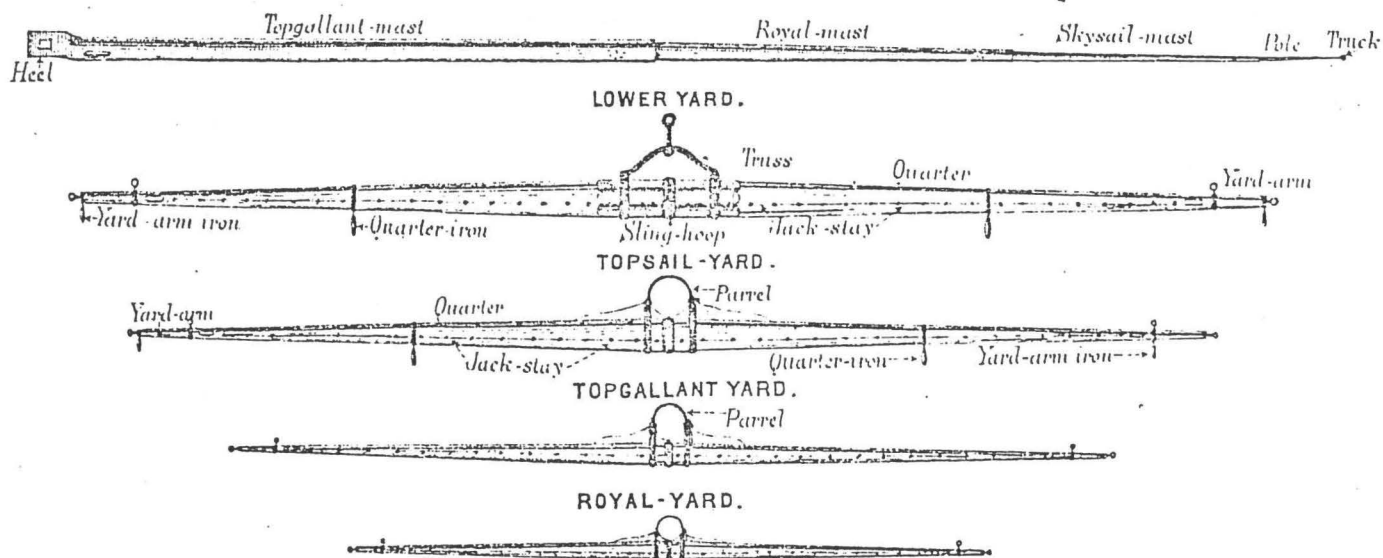
This diagram shows how the mast is divided into various sections. (Paasch; Keel to Truck.)



BALCLUTHA

YARDS

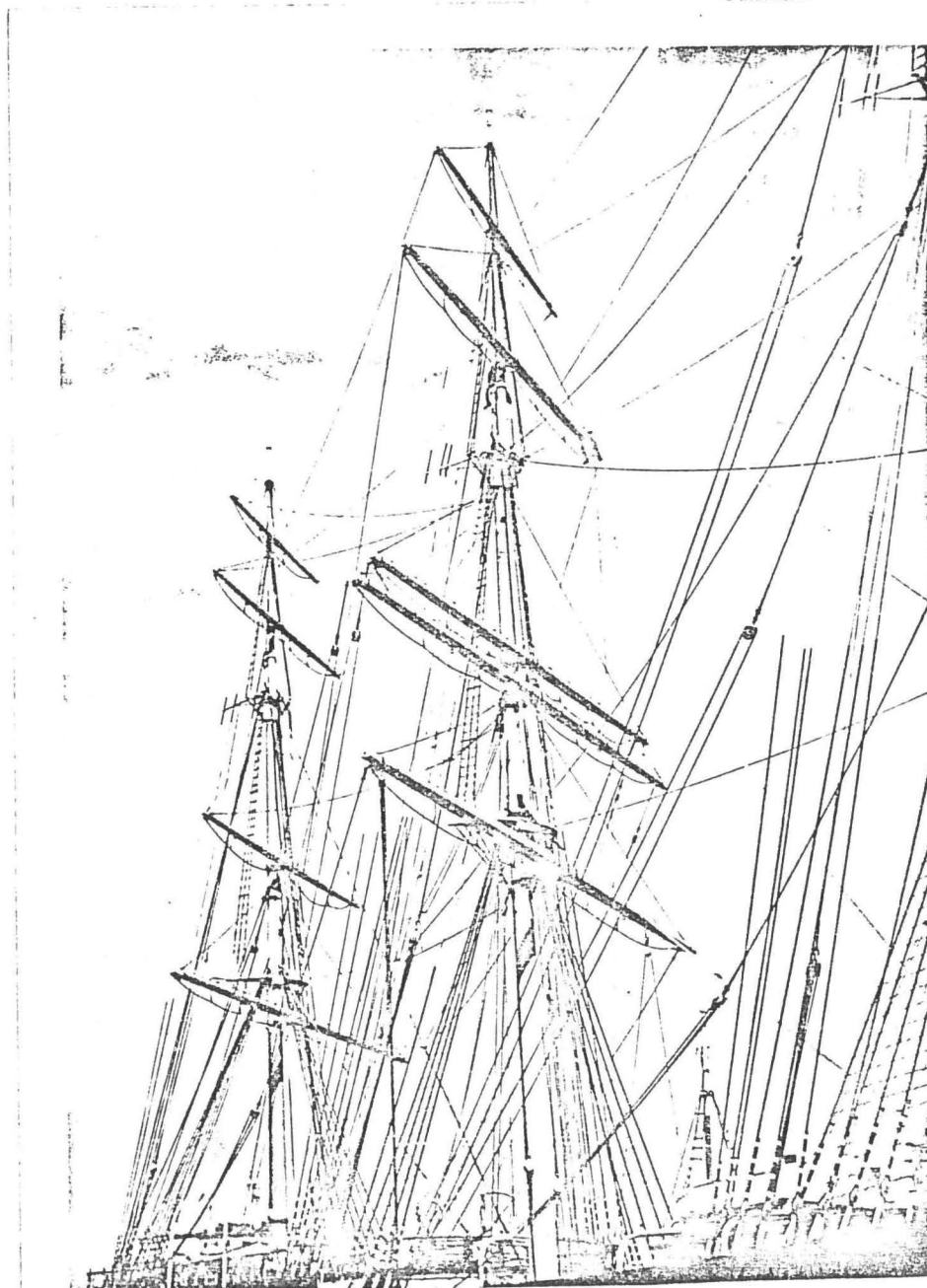
This diagram by Paasch shows the various yards that fit to mast on a full rigged ship.



BALCLUTHA

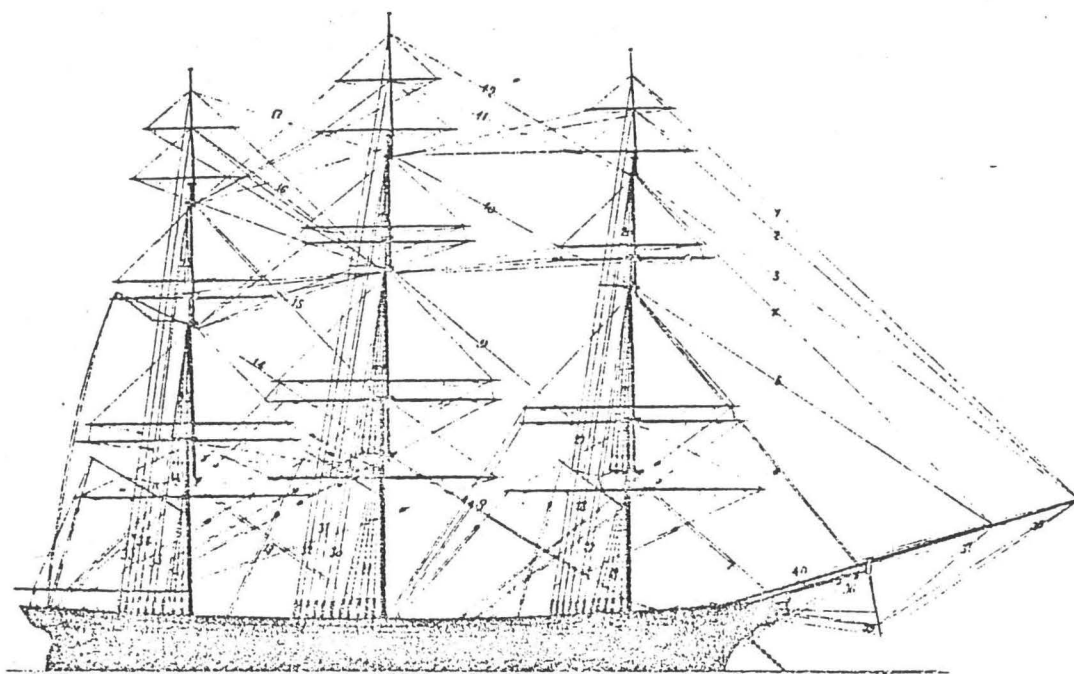
MASTS AND SPARS (CONTINUED)

This modern photograph of the Balclutha is marked to show the various yards and their names.



RIGGING

The following diagram shows the standing rigging of a full-rigged ship (e.g. the Balclutha.) It is from H. Paasch; From Keel to Truck. (Antwerp: Ratinckk Freres, 1885.)

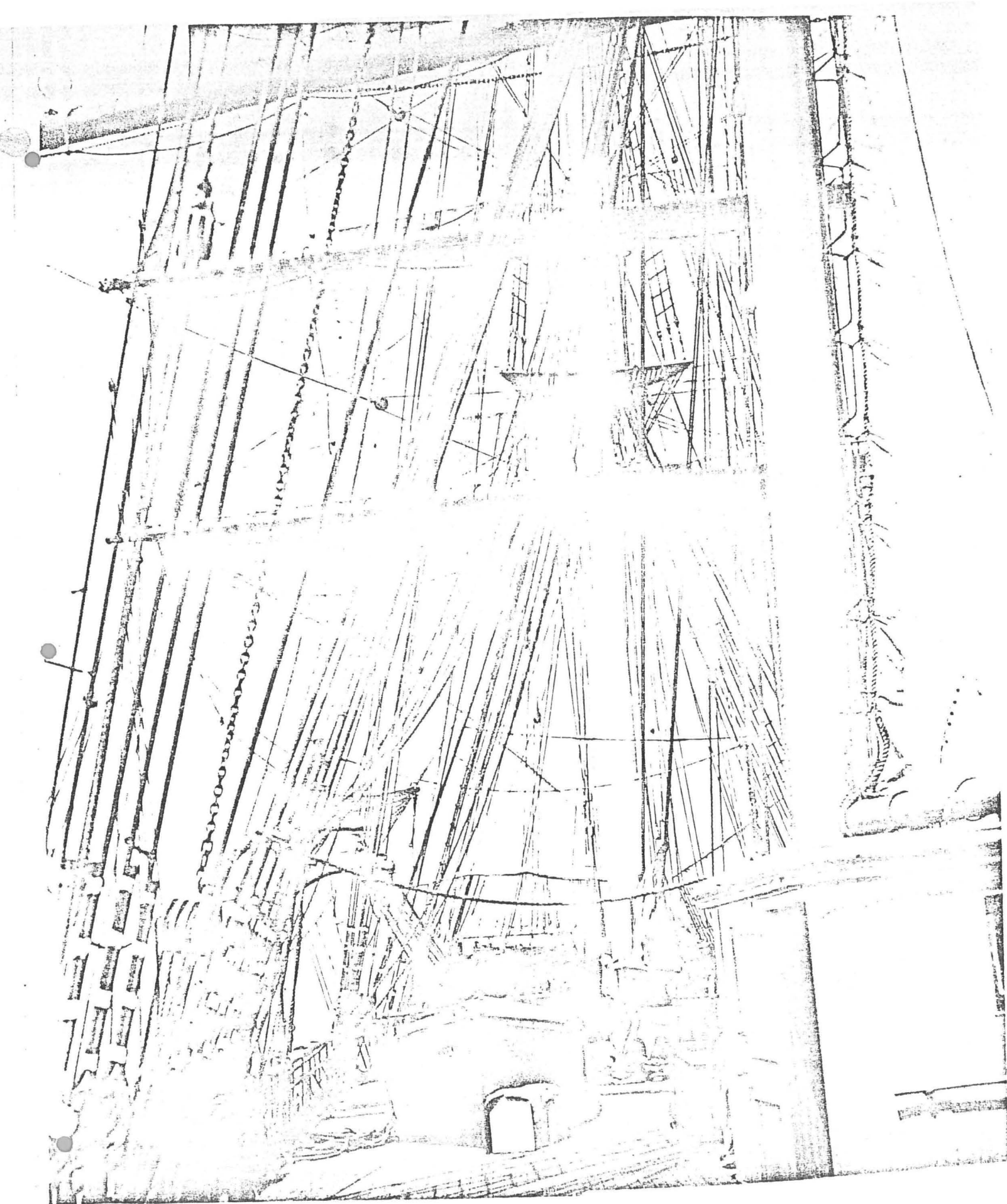


- | | | |
|---------------------------|----------------------------|-------------------------------------|
| 1 Fore skysail stay | 18 Fore rigging | 24 Mizzen rigging |
| 2 Fore royal stay | 19 Fore topmast rigging | 25 Mizzen topmast rigging |
| 3 Flying jib stay | 20 Fore topgallant rigging | 26 Mizzen topgallant rigging |
| 4 Fore topgallant stay | 21 Main rigging | 27 Fore topmast backstays |
| 5 Jib stay | 22 Main topmast rigging | 28 Fore topgallant backstays |
| 6 Fore topmast stay | 23 Main topgallant rigging | 29 Fore royal & skysail backstays |
| 7 Fore stay | | 30 Main topmast backstays |
| 8 Main stay | | 31 Main topgallant backstays |
| 9 Main topmast stay | | 32 Main royal & skysail backstays |
| 10 Main topgallant stay | | 33 Mizzen topmast backstays |
| 11 Main royal stay | | 34 Mizzen topgallant backstays |
| 12 Main skysail stay | | 35 Mizzen royal & skysail backstays |
| 13 Mizzen stay | | 36 Bobstays |
| 14 Mizzen topmast stay | | 37 Jib boom martingale stay |
| 15 Mizzen topgallant stay | | 38 Flying jib boom martingale stay |
| 16 Mizzen royal stay | | 39 Martingale guys or back ropes |
| 17 Mizzen skysail stay | | 40 Jib & flying jib boom guys |

BALCLUTHA

RIGGING

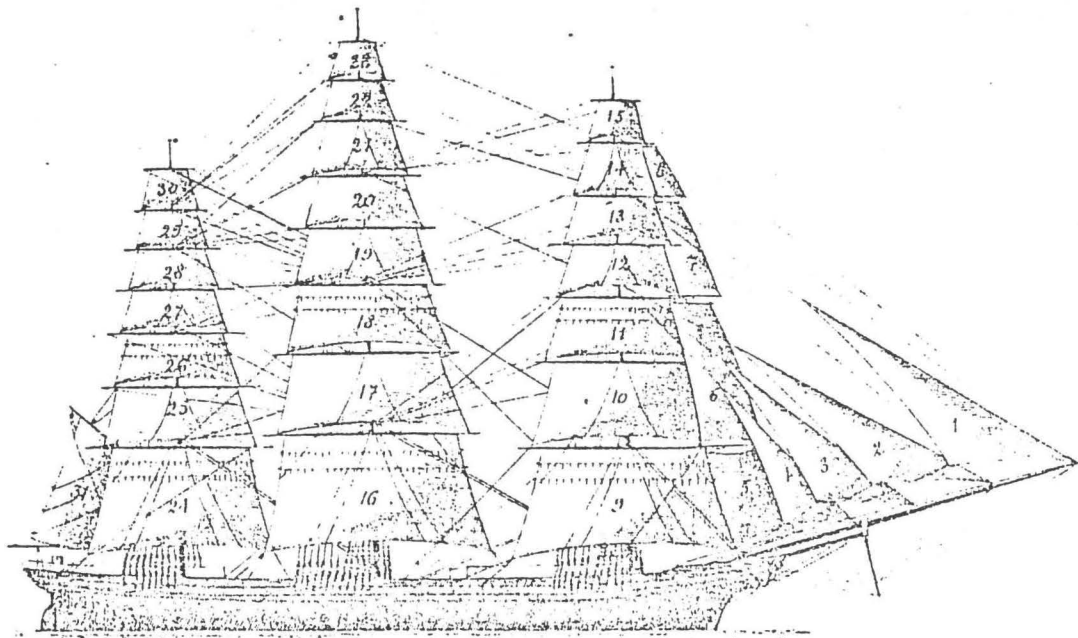
This photograph of the Balclutha was taken around 1920, when she was sailing as the Star of Alaska. As seen from the stern, and looking forward, the rigging is a complicated and somewhat confusing mass of rope.



BALCLUTHA

SAILS

This diagram of the sails of a full-rigged ship is from H. Paasch; From Keel
to Truck.

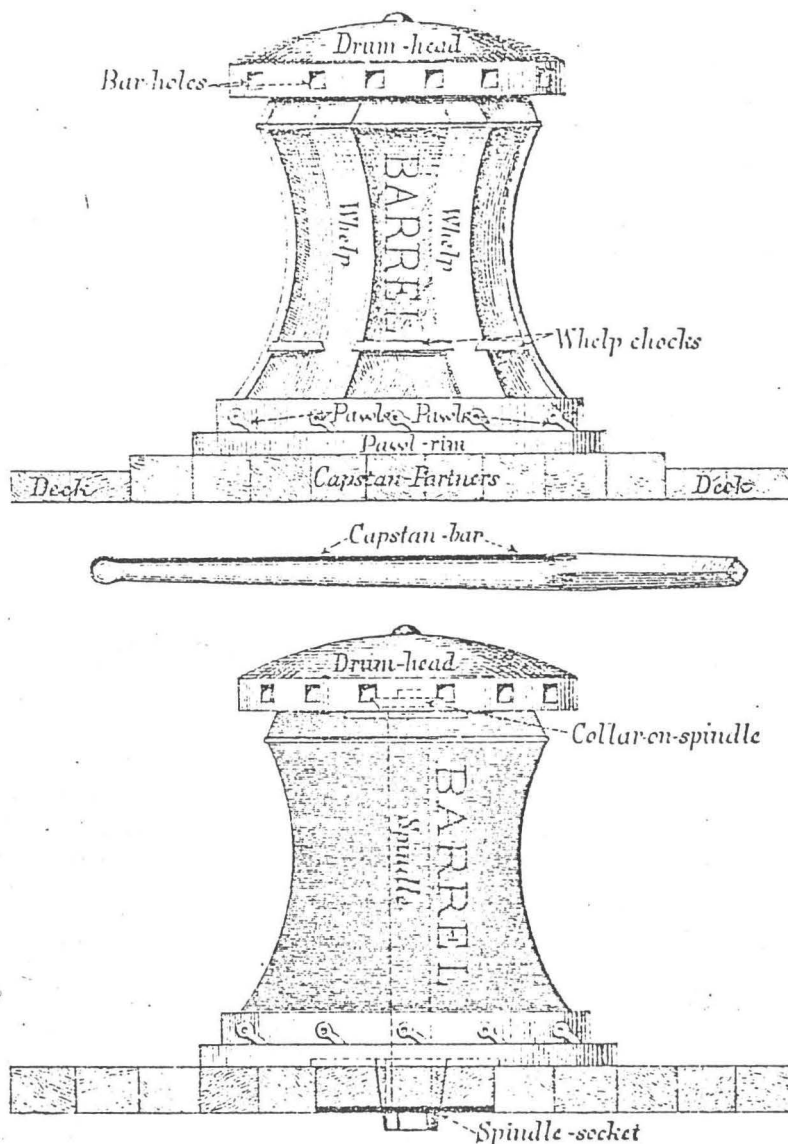


- | | | |
|-------------------------------|-----------------------------|--------------------------------|
| 1. Flying Jib | 14. Fore Royal. | 19. Lowermain Topgallantsail |
| 2. Standing Jib or Outer Jib | 15. Fore Skysail | 20. Uppermain Topgallantsail. |
| 3. Inner or Middle Jib. | 16. Mainsail or main course | 21. Main Royal. |
| 4. Fore Topmast Staysail. | 17. Lowermain Topsail. | 22. Main Skysail |
| 5. Lower Studdingsail. | 18. Uppermain Topsail. | 23. Moonsail. |
| 6. Topmast Studdingsail. | | 24. Cross-jack. |
| 7. Topgallant Studdingsail. | | 25. Lowermizen Topsail. |
| 8. Royal Studdingsail. | | 26. Uppermizen Topsail. |
| 9. Fore-Sail or Fore Course. | | 27. Lowermizen Topgallantsail. |
| 10. Lowerfore Topsail. | | 28. Uppermizen Topgallantsail. |
| 11. Upperfore Topsail. | | 29. Mizen Royal. |
| 12. Lowerfore Topgallantsail. | | 30. Mizen Skysail. |
| 13. Upperfore Topgallantsail. | | 31. Spanker. |

BALCLUTHA

MISC. EQUIPMENT

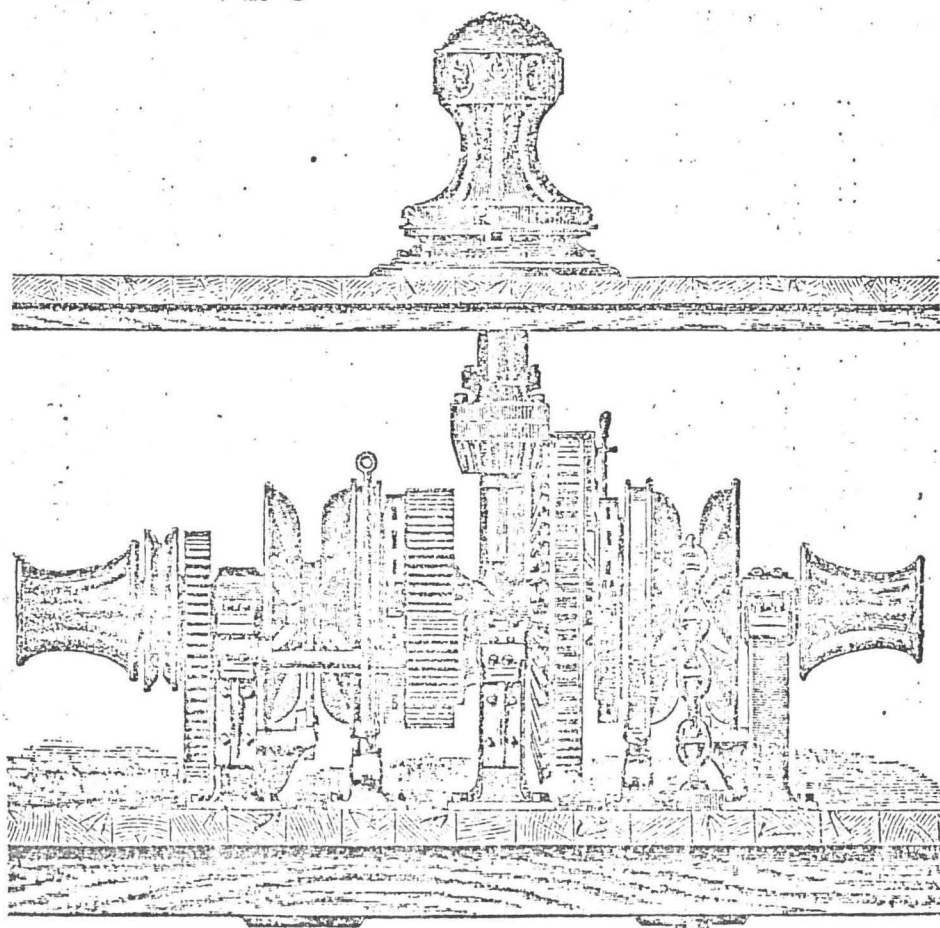
CAPSTAN: The Balclutha has two capstans...one is located on the f'o'csle deck and the other is located on the poop deck. What is different from capstan shown here is the extra set of bar-holes...the Balclutha has a "double-purchase" capstan. By placing the capstan bars in the bottom set of bar holes the ratio was doubled and allowed the men to move heavier objects. (Illustration is from Paasch, From Keel to Truck.)



BALCLUTHA

WINDLASS

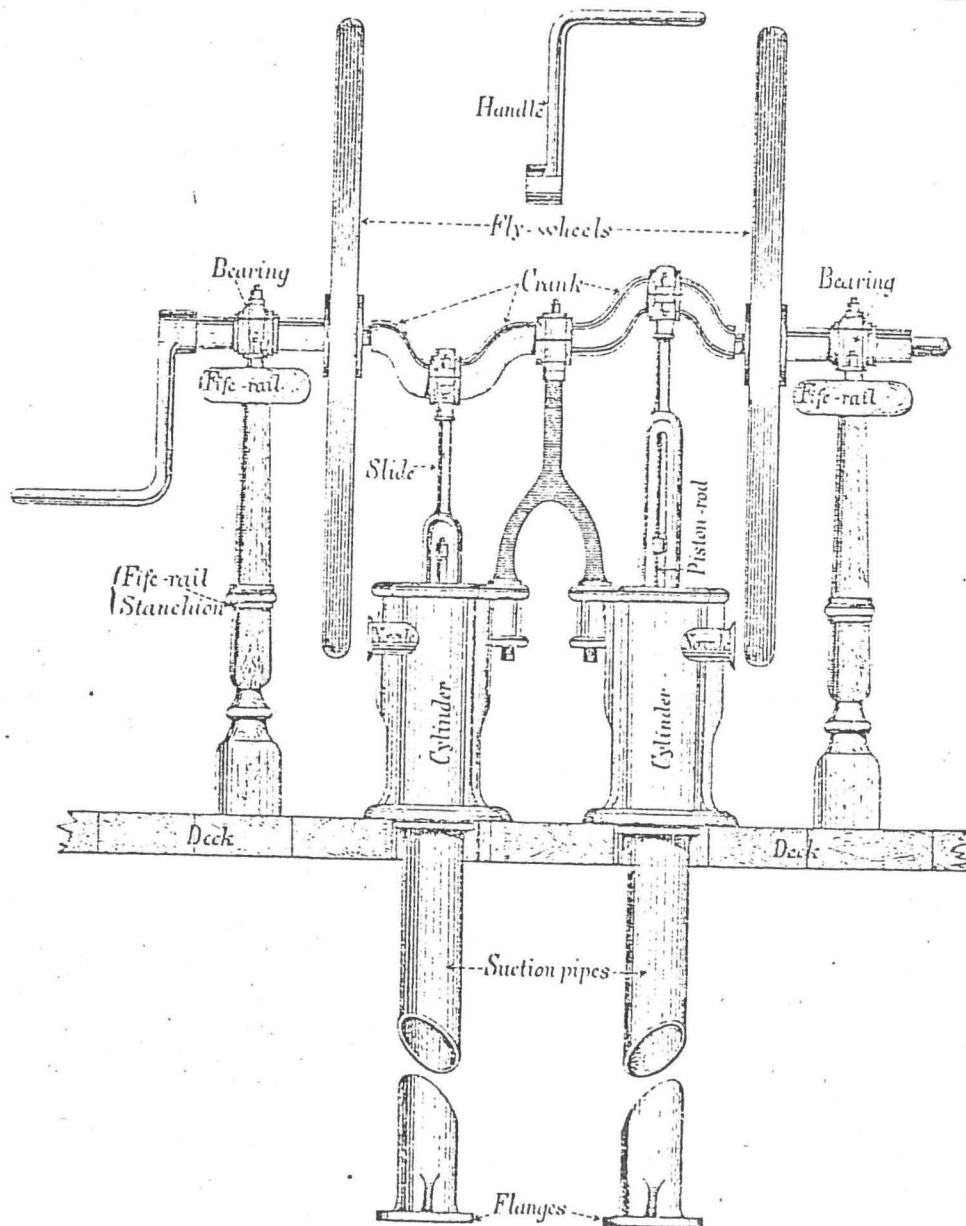
This is the type of windlass that the Balclutha has. It is operated with the capstan, which drives the windlass around, wrapping the anchor chain around and then passing it down into the chain locker below decks. (See back of page). The windlass shown here is an American manufactured model that is similiar in design and identical in operation to that on the Balclutha.



BALCLUTHA

MISC. EQUIPMENT

PUMP: Every ship had a bilge pump, usually hand operated, located near the poop deck. Balclutha's pump is attached to the fife rail abaft of the main mast. This illustration shows the construction of a pump similiar to Balclutha's (Paasch, From Keel to Truck.)



SECTION TWO: HISTORY

BALCLUTHA
HISTORICAL SIGNIFICANCE

The Balclutha is San Francisco's only floating tie to the great Grain Trade of the late 19th Century. The conversion of California's San Joaquin Valley into a grain-producing area had much the same effect as the discovery of gold in that it brought fleets of sailing ships to San Francisco. By the mid-1870s, grain was moving heavily through that port, opening a new era of sail and sending tonnage figures booming.

Following the California Gold Rush, many former miners had turned to the fertile farm lands of California. There was a scramble for valley land, especially in the "big valley" of central California. Carefully working the land, the farmers of the San Joaquin Valley raised crops which fulfilled the early prophecies that California was destined to become the "granary of the Pacific."

The large crops of wheat and barley in California called for new, large ships. Shipyards on the River Clyde in Great Britain came to life to launch great iron and steel ships, while New England Yankees laid the keels of what were to be known as "down-Easters." These ships were to become the Grain Fleet. These sailing ships, fast becoming obsolete in an age of steam ships and railroads, were a "romantic touch" to shipping. San Francisco again played host to a "forest of masts" on her waterfront as the grain ships of many nations sailed through the Golden Gate.

Soon after the California Gold Rush, when life had settled into somewhat normal times, the growing of grain for the now inflated population of the state

BALCLUTHA
HISTORICAL SIGNIFICANCE

showed that the fertile soil could produce a large enough excess for export. As early as 1855, the barque Greenfield sailed from San Francisco with 4,752 bags of grain for the eastern United States. Gradually, as more farms turned to the production of grain, the export grew larger and larger, spurring the development of the "Grain Fleet" of which the Balclutha was an active part. By 1880, one million tons of grain were sent around Cape Horn in the grain ships.

Though grain was the great staple that traveled around the Horn route, there were other Western commodities that were also carried. Borax and Salmon became increasingly prominent in the 1870s; canned goods became increasingly prominent in later years. Grain, however, remained the primary cargo of the ships leaving San Francisco from 1870 to 1900. The grain trade was an important step in allowing San Francisco to retain its' status as the primary Pacific port. After the fast growth and booming economy of the Gold Rush, San Francisco had settled down; the booming grain trade spurred forward the further economic development of the city. The grain trade was "one of the soundest commercial ventures of the century."

The Balclutha is important, then, for she is San Francisco's last member of the now vanished grain fleet.

(Source; Manuscript, "San Francisco Maritime Museum, untitled, 1955. Edited 1979 by J. Delgado)

BALCLUTHA

HISTORY

Edited from two sources: Harold D. Huycke; The Ship Pacific Queen. The American Neptune Magazine, July 1944; and an untitled manuscript in the collections of the Library of the National Maritime Museum, San Francisco.

THE HISTORY OF THE BALCLUTHA

Nearly seventy years ago San Francisco was the home port of the largest fleet of square-rigged sailing vessels in the world under one house-flag. The fleet comprised iron and steel ships, barks, four mast barks, wooden ships and schooners. They had been built in British, Scotch, Irish and American shipyards and varied widely in age and size. During the intervening years all but one have sailed away; most have been broken up.

The one remaining ship is the steel full-rigger Balclutha, once the well known Alaska Packer Star of Alaska. Before going into her earlier history it may be interesting to note a few of her present claims to consideration. When the Packers began substituting steam for sail in the late 'twenties, she was the last of the sailing fleet to go to Alaska. Now she is the last square-rigger afloat in the port of San Francisco. The old Star of India in San Diego shares honors with the Balclutha of being the last deep-water square riggers on the entire Pacific Coast under United States ownership.

The steel ship Balclutha was built in 1886 by Charles Connell at Glasgow, Scotland. Her name is Gaelic for a town (Bal) on the River Clyde (Clutha). In 1886 Robert McMillan of Dumbarton, Scotland, retired from shipbuilding and became a ship owner. He acquired Balclutha and another ship called Sirenica, which was lost in the Channel on her first voyage outward bound but without

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of salmon fishing and sailed for Karluk on April 27 under the command of Captain Bremer. Twenty-three days later she was wrecked on the north end of Sitkinak (Geese) Island. The wreck was purchased for the Alaska Packers by Mr. William Munn for \$500 and the ship was taken to Chip's Cove, Kodiak Island, where temporary repairs were made. On October 3 she sailed for San Francisco, but because of unfavorable conditions she had to return to Chip's Cove on October 11. While at anchor there, she dragged ashore and received additional damage. She remained there throughout the winter of 1904-1905 and in the spring of the latter year, officers, crew, pumps and material were sent up from San Francisco for additional repairs. These arrived on May 25; repairs were effected and Balclutha sailed for San Francisco on July 12, arriving there on August 7. On her voyage down she was commanded by Captain Nicholas Wagner. Balclutha's new owners turned her over to the United Engineering Works a month later, where work was done under the supervision of Captain Metcalf in accordance with Lloyd's Rules.

Under the command of Captain Wagner, the same man who had brought the damaged ship back from Alaska, Balclutha--- now renamed Star of Alaska in accordance with the company's policy of giving their iron and steel ships names with the Star prefix---made her first trip to Alaska under new ownership in 1906. This was the beginning of the Star of Alaska's service in the Alaska Packer's Association.

Though the distance from San Francisco to Alaska was approximately 2400 miles, a voyage that was not considered long as sea voyages go, each

BALCLUTHA

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ship was loaded with supplies, for canneries, fishermen, cannery-hands and all of the various operations involved in catching, canning and transporting the salmon pack from Alaska to San Francisco. This seasonal operation covered a period of approximately seven months. Since each ship carried upwards of 100 men on board, and supplies to keep them going during the season, considerable alterations were necessary in the living quarters and storage spaces on the ship. After the first fishing season one hundred and fifty bunks were installed on the Star of Alaska. In 1910, seventy two more bunks were added in the 'tween decks. In 1911 her poop deck was extended 68 feet, 8 inches to accomodate eighty-six more fishermen. The same year, 1911, the Star of Alaska had broken knees in the 'tween decks repaired, and the whole main deck recaulked. Fortunately the Alaska Packers Association took good care of their ships.

From 1906 to 1930 the Star of Alaska sailed to Chignik Bay in Alaska every year. Upon arrival at the Chignik cannery, both anchors were let go, and a swivel was shackled to the chains, so that the ship could swing freely during the summer months. As the stores were unloaded by the crew, the upper yards and tophammer were lowered to improve stability and keep the ship upright. All hands then turned to getting the cannery ready for operation, which sometimes meant doing everything from carpentry work to overhauling the fishing boats and barges. At the end of the season, the cannery would be closed, the canned fish loaded on board, the the crew and their catch would return to San Francisco.

BALCLUTHA

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For the twenty-four years of passages she made to Chignik, the Star of Alaska averaged better than twenty-two days going North and better than fifteen days homeward bound. Her average day's run was about one hundred and forty three miles a day, averaging six knots all the way. In 1925, well-known maritime artist Gordon Grant made the trip to Chignik on board the Star of Alaska, the result being a number of sketches depicting shipboard life in his book Sail Ho.

The year 1925 marked the beginning of the end for the sailing ships in the Alaska Packers fleet. That same year the Association bought its first steamer--the Arctic-- and began to lay up the old sailing ships. By 1924 the iron and steel sailing ships had caused the wooden sailing ships to be laid up; and by 1927 most of the iron and steel ships had joined them. By 1928 only five ships were sent to Alaska, the Star of Alaska being one of them. The Star of Alaska eventually outlived all of her Alaska Packers Association contemporaries. In 1930 she was the only sailing ship sent north; upon her return on September 16, she was laid up with the rest of the sailing fleet.

After being laid up for nearly two years the Star of Alaska was bought from the Alaska Packers Association by Frank Kissinger of Los Angeles for \$5,000. It was his intention to fit the ship out with salt water tanks in the 'tween decks for an aquarium. However, the idea proved impractical and was abandoned. Finally, on February 4, 1934, the Star of Alaska--now renamed Pacific Queen by Kissinger, set sail for Los Angeles.

For about a year the Pacific Queen lay at anchor in Los Angeles harbor,

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during which time she appeared in several motion pictures, including "Mutiny on the Bounty," in which she was used as a Man-of-War in Plymouth Harbor. Her hull was painted white with huge black gun-ports along her sides.

In 1935-1936 she was exhibited in San Diego as a pirate ship, being moored behind her old Alaska Packers mate, the Star of India. After an ill-fated sailing venture to the South Seas in 1936, she returned to Los Angeles Harbor, where she remained at anchor until 1939, when she was towed back to San Francisco. There, Kissinger opened her to the public at Fisherman's Wharf, where she remained until the beginning of war in 1941. She was then towed to South San Francisco to provide space for cargo vessels. In 1943, she was again towed out of the way, this time to the quiet backwaters of Sausalito.

In Sausalito she quietly began to fall apart. Rust appeared on her hull, her rigging rotted and fell to the decks, and her appearance was one of neglect and dejection. She narrowly escaped being cut down to a barge by the military during the war, but the intervention of interested parties forestalled the scrapping. With the end of the war, the Pacific Queen was again towed south, this time to Long Beach, where she was put on display by the Kissingers. They contacted the City of Long Beach with hopes of selling the ship to the city, but the plans never finalized.

Meanwhile, in San Francisco, a new movement was underway which was to affect the destiny of the Pacific Queen. The San Francisco Maritime Museum Association was formed to preserve the colorful history of the port. The first move of this organization was to convert an unused public bathhouse in Aquatic Park into a maritime museum building. The second phase was to preserve

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number of historic vessels, preferably beginning with an old square-rigger. Many of the members of the Maritime Museum Association had close ties with the sea. Accordingly they traveled to Long Beach to present their plans to the Kissingers. By 1952, their perseverance paid off when the Kissingers brought the Pacific Queen back to San Francisco. However, they had not settled whether they would be able to purchase the ship or not. The Kissingers had strong ties to the ship. However, after Frank Kissinger's death in 1952, his widow finally agreed to sell the ship to the San Francisco Maritime Museum Association.

Finally, in May of 1954, negotiations for a price were successfully concluded when Mrs. Kissinger sold the ship for \$25,000 to the San Francisco Maritime Museum Association. A great amount of public and industrial support poured in, and many marine firms donated materials or labor, as did the local maritime unions. Finally, after nearly two years of painstaking restoration, the Pacific Queen, restored with her original name, Balclutha, was brought to Fisherman's Wharf and opened to the public.

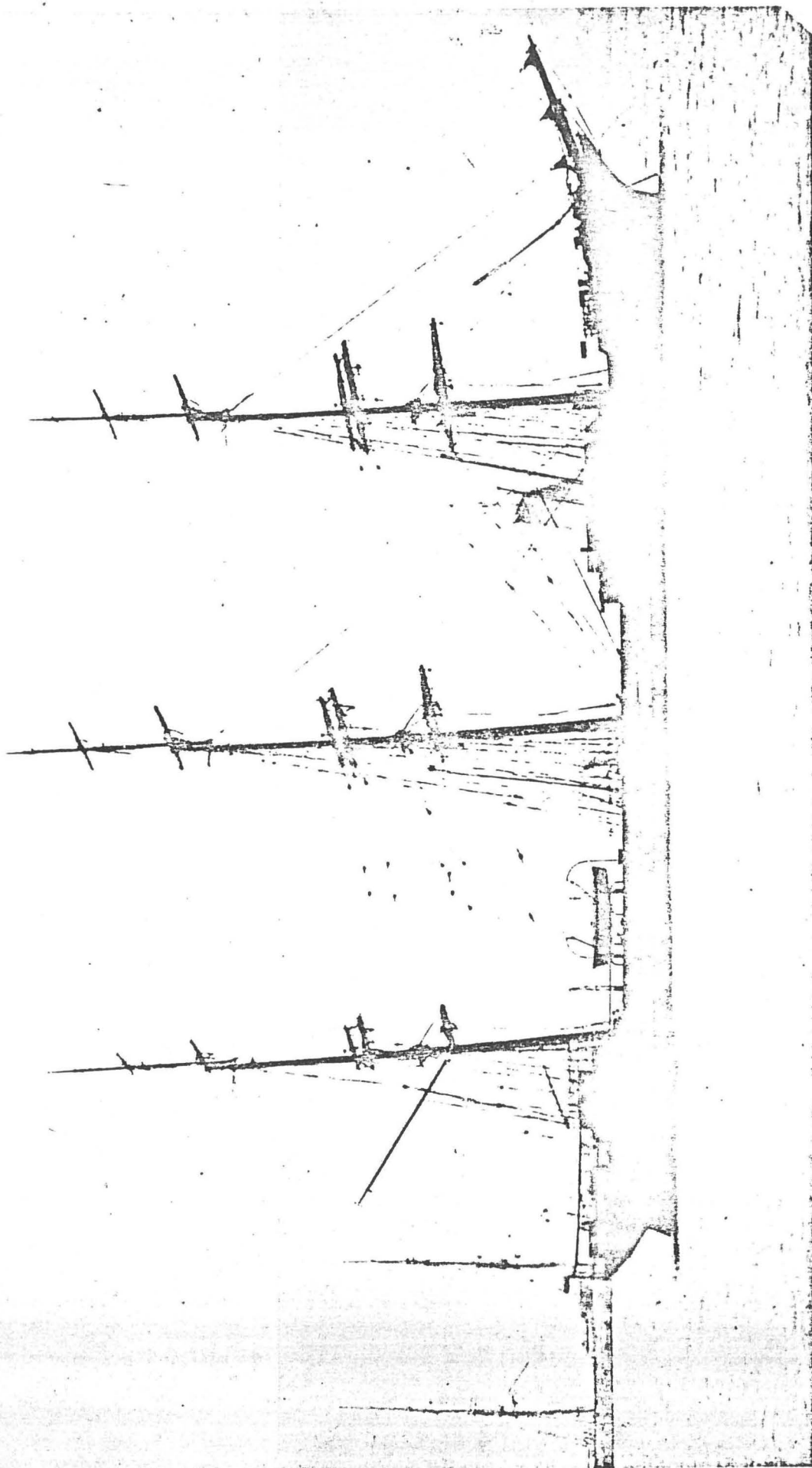
The Balclutha was and is a popular attraction on San Francisco's Fisherman's Wharf. From 1954 until 1978, the Balclutha was operated by the San Francisco Maritime Museum Association as a museum ship. With the establishment of the Golden Gate National Recreation Area on the San Francisco waterfront, negotiations to integrate the San Francisco Maritime Museum and the Balclutha into the Golden Gate National Recreation Area as part of the National Park system. Finally, on June 18, 1978, the San Francisco Maritime Museum, and the Balclutha, became part of the National Park Service.

BALCLUTHA
HISTORY

The Balclutha as she originally appeared. From a painting by Charles S. Morrell. Note that the poop deck ends abaft of the mizzen mast. From the Photo Collection of the National Maritime Museum, San Francisco.

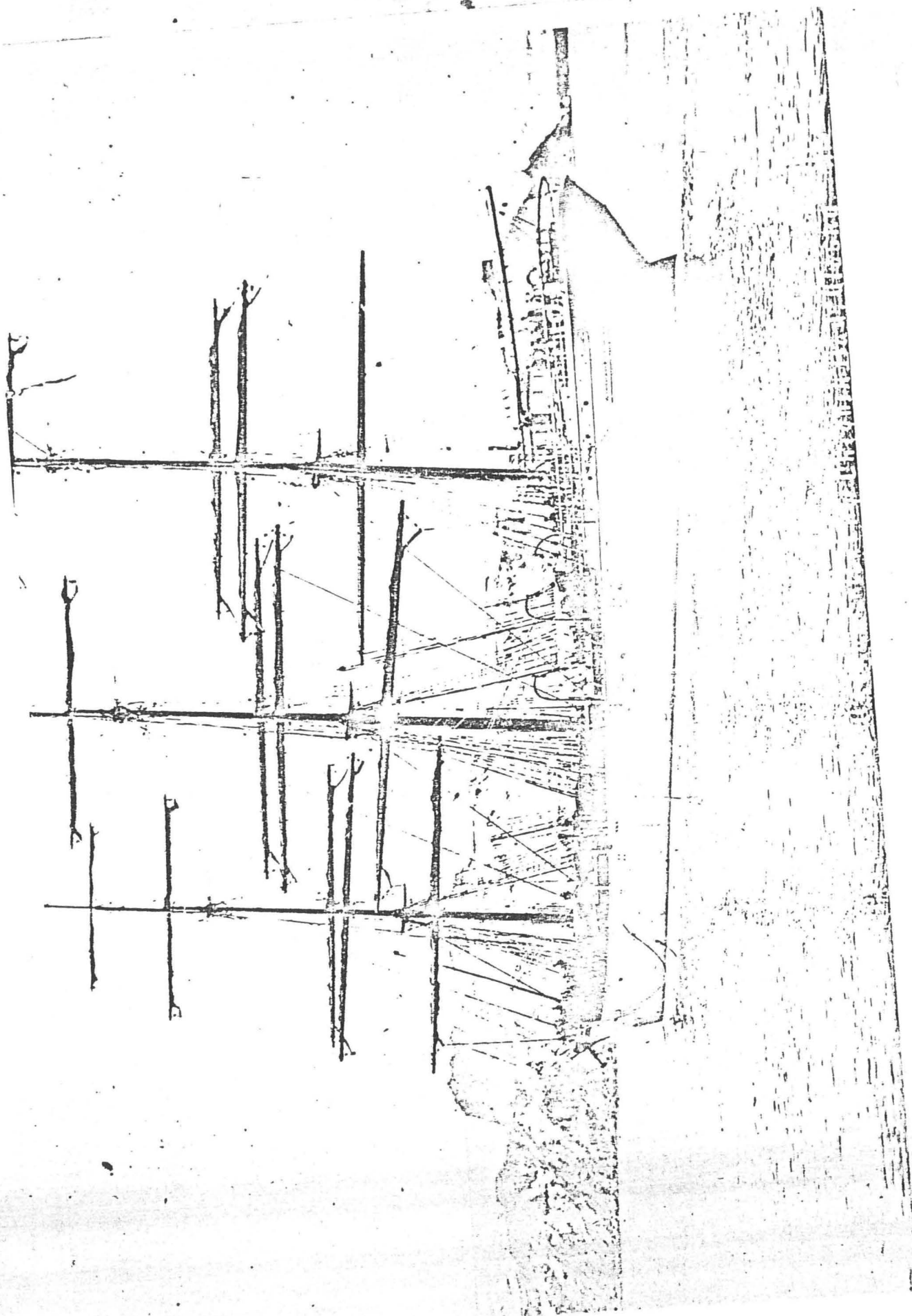
BALCLUTHA
HISTORY

This photograph shows the Balclutha sometime prior to 1899. This is how she originally appeared, prior to the alterations to her in 1911-1915. From the Photo Collections of the National Maritime Museum, San Francisco.



BALCLUTHA
HISTORY

The Balclutha as the Star of Alaska, circa 1925. Here she is shown entering Chignik Bay, Alaska. From the Photo Collection of the National Maritime Museum, San Francisco.



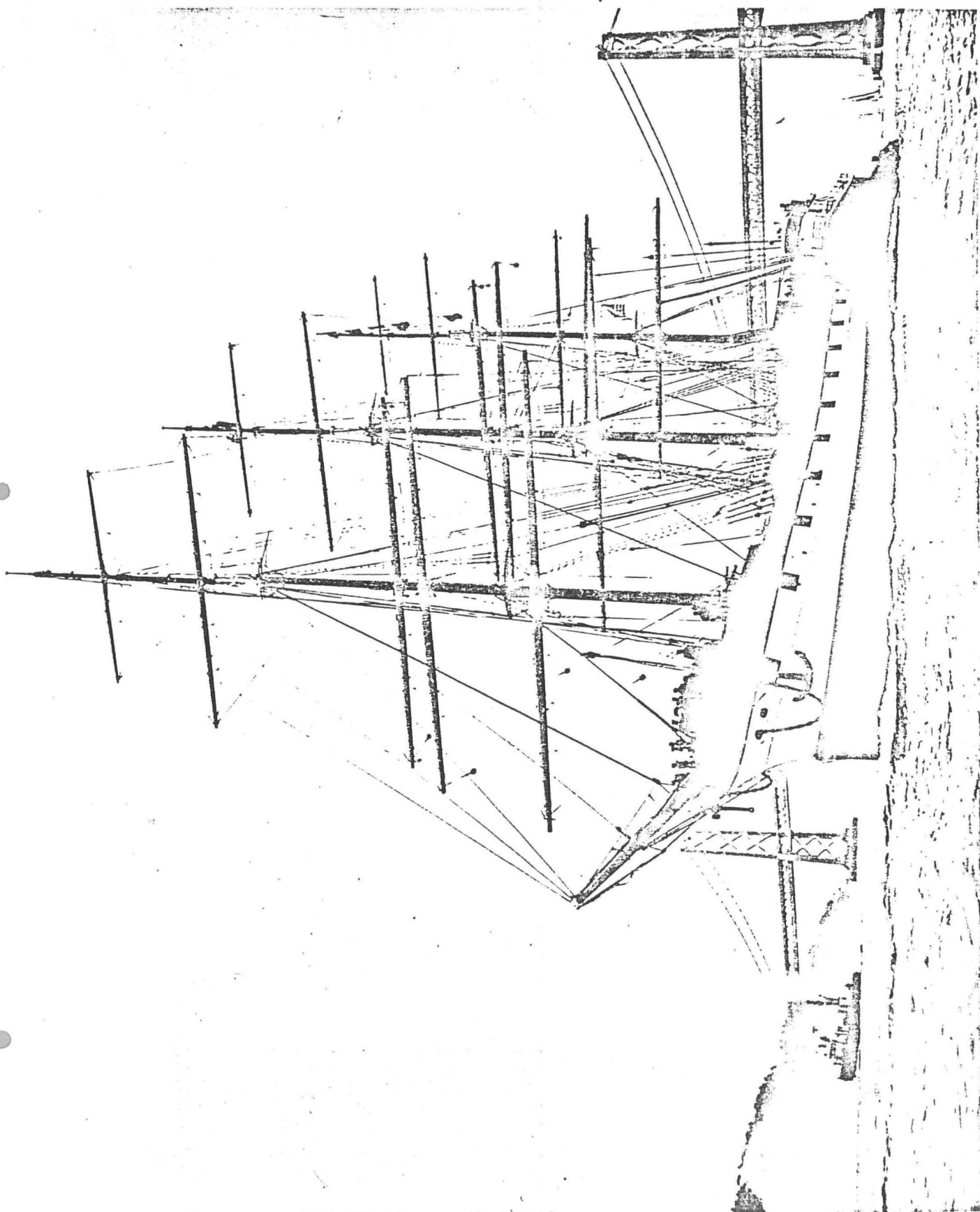
BALCLUTHA
HISTORY

The Star of Alaska departs San Francisco on her last voyage to Alaska, April, 1929. From the Photo Collection of the National Maritime Museum, San Francisco.



1
BALCLUTHA
HISTORY

The Balclutha crossing San Francisco Bay after her restoration, 1955.
Photo by Karl Kortum, from the Photo Collection, National Maritime Museum,
San Francisco.



BALCLUTHA

History

APPENDIX-VOYAGES OF THE BALCLUTHA

This work, prepared primarily by John Lyman and Harold Huycke, lists the voyages of Balclutha from 1887 to 1930 and includes accounts of her cargo and significant events of each voyage. The manuscript is on file in the Library of the National Maritime Museum, San Francisco.

Early Voyages of Ship "BALCLUTHA"

PART I: DEEP-WATER VOYAGES

(Information on hand to April, 1955, principally secured by Mr. John Lyman, Washington, D.C., USA, in Library of Congress, Navy Department Library, and National Archives)

From "Marine Engineer," Jan. 1, 1887, p. 352:

"BALCLUTHA-- on December 9th, Messrs. Charles Connell & Co. launched from their shipbuilding yard at Scotstoun, Whiteinch, a steel sailing ship, named BALCLUTHA, of about 1,600 tons gross, for local owners. The vessel's dimensions are: - Length, 247 ft.; breadth, 38 ft. 6 in.; depth, 23 ft. She has been built to the highest class in Lloyd's Registry, and is fitted with all the modern appliances for the speedy loading and discharge of cargo. The BALCLUTHA is intended for the general trade. As she left the ways, she was named in the customary manner by Mrs. Constable, wife of the captain who is to command the vessel, and who has superintended the construction of the vessel."

Voyage 1

1886 27 Dec. Ship registered at Glasgow; owner of 64 shares Robert McMillan of Dumbarton, shipowner

29 Dec. sailed from Tail-of-the-Bank of Cardiff in ballast (source: Greenock Telegraph)

1887 15 Jan. sailed Cardiff (Penarth), 2650 tons of coal to
Capt. J. F. Constable J. D. Spreckels & Co.
(formerly of Ship MACDIARMID;
address: London; age: 41)

9 June arrived at San Francisco,
140 days; chartered prior to
arrival at 31/6

Captain J. F. Constable, Master, Age 41		
1st Mate John G. Moss, Age 34	£8	per month
2nd Mate " 26	5.5.0	"
3rd Mate " 21	3.5.0	"
4th Mate " 21	3.0.0	"
Carpe " 41	6.0.0	"
Stew " 30	4.5.0	"
Cook	4.0.0	"
14 A	2.10.0	"
4 O.S.	1.5.0	"
4 app.	no pay	

Four s sorted at San Francisco

1887	26 Aug.	sailed from San Francisco	59,179 cantals wheat, valued at \$95,953, shipped by William Dresbach
1888	7 Jan.	arrived at Queenstown	
	21 Jan.	arrived at Fleetwood	
Voyage 2			
1888	6 Feb.	sailed from Fleetwood, Capt. Constable	
	3 Mar.	sailed from Swansea	2660 tons of coal to Macondray & Co.
	26 July	arrived at San Francisco 145 days	
		Eight seamen and two apprentices deserted at San Francisco.	
	2 Sept.	sailed from San Francisco	60,389 cantals, \$95,100, G. W. McNear, 30/-; chartered prior to arrival
	28 Dec.	arrived at Queenstown	
1889	2 Jan.	sailed for Plymouth	
	10 Jan.	arrived at Plymouth	
Voyage 3			
1889	5 Feb.	sailed from Plymouth, Capt. John Binnie (formerly of ship DUKE OF ABERCORN, address: Grangemouth, Scotland; age: 46)	
	5 Apr.	sailed from Antwerp, Capt. Binnie	merchandise: A Carpentier
	7 Apr.	passed Dungeness	
	17 Aug.	arrived at San Francisco, 132 days Ten men deserted at San Francisco	FOR CARCO AND CCH- SIGLES SEE INSERT A FOLLOWING PAGE
	23 Oct.	sailed from San Francisco	chartered for round trip, 60/-; 59,514 cen- tals, \$81,343; Eppinger & Co.
1890	20 Mar.	arrived at Falmouth	
	26 Mar.	sailed for Sunderland	
	1 Apr.	arrived at Sunderland	

INSERT A

(See previous page)

From the San Francisco Evening Bulletin, Aug. 17, 1889

"The Balclutha from Antwerp brings 2,500 bbls Cement, 22,200 cs Window Glass, 1,450 bxs Castile soap, 90 bags Alum, 200 bbls Sulphur, 115 cs Wash Blue, 200 cs Boonckamp, 28,000 reels Steel Wire, 820 cs Olive Oil, and a large quantity of Wines and Liquors."

Consignees of BALCLUTHA cargo:

A. Carpentier; Whittier, Fuller & Co.; order; Dunham, Carrigan & Hayden Co.; Leon R. Meyers & Co.; Jas. de Fremery & Co.; Chas. Meinecke & Co.; A Vignier; P. Ponderon; A. N. Hartevilt; Eugene Thomas & Co.; Chas. Graef; Lillenthal & Co.; F. Chevalier Co.; London, Paris, & American Bank

From the San Francisco Daily Alta, Aug. 18, 1889

Capt. J. Bannie of the British ship Balclutha, in the course of a long report of the voyage from Antwerp, says he lost the northeast trades in the Atlantic on April 29th, in latitude 4° 24' north and longitude 23° 51' west. In the doldrums a strong northerly current of at least thirty miles a day was experienced. On May 25th, in latitude 32° 37' south, longitude 43° 10' west, a heavy northwest gale was met with, the weather keeping bad and unsettled until the 28th, when they got into a hurricane. At noon the glass registered 29.36, wind northeast, light breeze and foggy. At 7 p.m. the weather was looking bad and the glass falling. Furlled everything but the fore and main lower topsails, and hauled to wind on starboard tack. At 8:30 p.m. a perfect hurricane was blowing; barometer, 29.7. The wind had shifted to the southwest, with terrific seas breaking completely over the vessel and the decks fairly submerged until noon, when wind having shifted into the south and glass at 29.74, gale began to take off and the ship was wearied around on port tack.

INSERT A

(Continued)

Afterwards a succession of SSW., W. and NW. winds were experienced until June 10th, when St. John's Point, Staten Island, was sighted. Thence until June 17th very bad weather indeed, with hail, snow and bitter cold, was experienced, and after Diego Ramirez was passed, fine weather and constant fogs. On 27th, lat. 50 S. in 85 W. was crossed, 80 days out. The weather for the rest of the passage was fairly good. The Balclutha arrived yesterday, 132 days on the passage. Captain Binnie's report is a model of what a report should be, and could be copied with good result by captains of incoming vessels, many of whom leave their reports to be written by the steward or other incompetent person. Very often these reports are gems of their kind, and could not be surpassed for bad spelling, illegibility and general confuseness.

Voyage 4

1890 21 June sailed from Cardiff,
Capt. John Binnie

1 Sept. arrived at Cape Town

20 Sept. sailed from Cape Town

11 Nov. arrived at Napier, New Zealand

6 Dec. RANGITEKI broke adrift and came into collision
with anchored BALCLUTHA. Bulwarks and stanchions
of BALCLUTHA damaged; repairs to take two weeks
and cost £300; charterers' expense.

1891 2 Jan. sailed from Napier

12 Apr. arrived at London

Voyage 5.....

1891 31 May sailed from London, Capt. J. W. Morrell
(also given 1 June)
(formerly of ship JOHN BUNYAN,
address: Yarmouth, Nova Scotia; age: 27)

Chief Mate: John Simpson of Caithness,
(came from JOHN BUNYAN at same time)

1 July arrived at New York

13 Aug. sailed from New York; Destination reported
both as Rangoon and Java

1 Dec. arrived at Rangoon

1892 20 Feb. sailed from Rangoon

3 May passed St. Helena

26 June off Falmouth; ordered to Amsterdam

30 June arrived at Amsterdam

Nov. surveyed by Lloyd's Register at Amsterdam

15 Nov. sailed from Amsterdam

19 Nov. arrived at Barry

Voyage 6

1892 7 Dec. sailed from Barry, Capt. Morrell
 1893 9 Jan. spoken in 20 S, 36 W, steering S.
 1 Mar. arrived at Callao
 26 Apr. sailed from Callao
 29 Apr. arrived at Lobos de Tierra
 14 June sailed from Lobos de Tierra
 4 Oct. arrived at Antwerp
 14 Nov. sailed from Antwerp
 28 Nov. arrived at Barry

Voyage 7

Nov. surveyed by Lloyd's Register at Barry
 26 Dec. sailed from Barry, Capt. Morrell
 1894 18 Feb. spoken in 48 S, 64 W
 26 Mar. arrived at Callao
 sailed from Callao
 4 June arrived at Iquique
 31 July sailed from Iquique
 3 Nov. arrived at Rotterdam
 23 Nov. sailed from Rotterdam
 1 Dec. arrived at Barry

Voyage 8

Dec. surveyed by Lloyd's Register at Barry
 14 Dec. sailed for Iquique, Capt. Alfred H. Durkee
 (formerly of bark FRED PERRY; address: Yarmouth,
 Nova Scotia; age: 34)
 24 Dec. put back to Barry Roads, damaged after collision
 with Nova Scotia ship POLYNESIAN

1895 22 Jan. sailed from Barry
 5 June arrived at Iquique
 19 Sept. sailed from Iquique
 31 Dec. arrived at Falmouth
 1896 7 Jan. sailed from Falmouth for Antwerp
 11 Jan. arrived at Antwerp

Voyage 9

1896 1 Apr. sailed from Swansea, Capt. Durkee 2197 tons of coal, 397 of coke, to Williams, Dimond & Co.
 15 Aug. arrived at San Francisco, 135 days
 Chartered prior to arrival at 27/6 (usual options)
 Nine sailors, one apprentice deserted at San Francisco.
 13 Oct. sailed for London 44,433 cases salmon,
 11,474 cases canned fruit,
 6,789 centals beans,
 11,202 centals barley,
 30 gals. wine
 \$237,389 by Hughes & Co.
 21 Feb. arrived at Gravesend. Was ashore that morning on the Chapman, owing to breaking the stock of the starboard anchor; towed off at noon by tug CONQUEROR, apparently uninjured. That afternoon was run into by collier ss ELLA from Shields; slight damage to stern of ship; steamer's rails damaged on starboard quarter.

Voyage 10

1897 5 May sailed from London, Capt. Durkee merchandise; to J.D. Spreckels & Bros. Co.
 24 Sept. arrived at San Francisco, 143 days. SEE LIST B
 Twelve sailors deserted at San Francisco.
 18 Nov. sailed from San Francisco 58,558 centals, \$89,572, Eppinger & Co., 27/6
 1898 2 Apr. arrived at Falmouth
 9 Apr. arrived at Havre
 22 May sailed from Havre

General cargo taken in the Tonnes and delivered
at San Francisco 143 days later consisted of:

55 cases beer
12,017 casks cement
225 bags cocoa
2 cases chalk
303 tons coke
22 cases earthenware
106 cases MT bottles
2 cases furniture
2 cases household effects
56 bales jute yarn
25 cases liquor
100 cases mustard
636 packages oilmen's stores
100 cases sardines
5 cases shells
3 cases show cards
100 cases spirits
500 cases vermouth
100 cases whiskey
6 hogsheads, 25 octaves, 234 cases wine

Voyage 11

1898 23 June sailed from Greenock, Capt. Durkee

8 Aug. arrived at Montevideo

4 Oct. sailed from Montevideo

6 Dec. arrived at Calcutta

1899 4 Feb. (?) sailed from Calcutta

11 March in 37 S, 84 E, a baby girl was born to Mrs.
Durkee; to be named Inda Frances Durkee (for
Indian Ocean and San Francisco)

27 May arrived at San Francisco, 112 days (cargo and consignee
not stated)

By Bill of Sale dated 23 June, 1899, BALCLUTHA was
sold by Robert McMillan to Herbert Charles Oswald
(10 Fenchurch Avenue, London), merchant, believed
to be acting for the J. J. Moore interests of San
Francisco.

22 Aug. register at Glasgow transferred.

A month and a half later, on 8 Aug., 1899, BALCLUTHA
was bought by L. D. Spencer, Hawaiian citizen, and
granted a Hawaiian register the same day.

1900 14 Feb. Registry closed on account of sale to foreigners:
subject of United States.

24 Apr. Registry at Glasgow cancelled.

A year later, on 2 Aug., 1900, she was sold to the
Pacific Colonial Ship Co., a San Francisco corporation
acting for J. J. Moore & Co., as was probably also
L. D. Spencer.

ART II: VOYAGES IN THE OFF-SHORE LUMBER TRADE

Voyage 12

1899 26 July sailed from San Francisco
for Port Townsend, Capt. Hatfield. (Jobson?)

15 Aug. arrived at Port Townsend. 1,531,172 super ft. lumber
Loaded at Port Blakely on (Oregon Pine)
Puget Sound (1,500,130 ?) (1,500,182 ?)
\$11,404. For Broken Hill
silver-lead mines, consigned
to Globe Timber Prop., Ltd.

30 Sept. sailed from Port Townsend
for Port Pirie

(25 Sept. cleared Port Townsend Custom House)

1900 16 Jan. arrived at Port Pirie, Capt. Hatfield, 108 days
(Capt. Jobson ?)

14 Feb. sailed for Newcastle, New South Wales
in ballast

1 Mar. arrived at Newcastle, N.S.W.

1900 27 Mar. sailed for San Francisco 2608 tons coal
(26 Mar. Capt. Hatfield)

9 June arrived at San Francisco, 74 days
Capt. Geo. A. Hatfield

Voyage 13

1900 7 July sailed San Francisco for Port
Townsend, Capt. Hatfield

28 July arrived at Port Blakely, 22 days 1,535,021 ft. lumber
Loaded at Port Blakely \$13,314.

23 Aug. sailed from Port Blakely

Aug. arrived at Port Townsend

Aug. Collector at Port Townsend issued a sea letter
under Art. 62 of the Customs regulations

31 Aug. sailed from Port Townsend
(30 Aug. cleared Port Townsend Custom House)

19 Nov. arrived at Port Pirie, 80 days

1901 12 Jan. sailed for Newcastle, N.S.W.

1901 29 Jan. arrived at Newcastle, N.S.W.
 1 Feb. in port Newcastle, N.S.W.
 Mar. admitted to U.S. Registry; Puget Sound
 Commercial Co. (is Pope & Talbot)
 15 Apr. sailed for Honolulu 2521 tons coal
 2 June arrived at Honolulu, 48 days
 Capt. Hatfield
 19 June enrolled as American ship
 2 July Registered at Honolulu Custom House
 3 July sailed for Puget Sound

BALCLUTHA was the last vessel to fly the Hawaiian flag at sea. It was struck for the last time during the foregoing voyage, when the 56th Congress, running two days over schedule and with the clock stopped, passed a special act admitting her to American registry.

BALCLUTHA's bill had been introduced in the Senate on 12 Jan. 1901 by Mr. Foster as S5542, and in the House by Mr. Kahn on San Francisco (then in his 2nd term; he and his widow held down that seat until the '30s) on 14 Jan. 1901 as HR13530. The Senate Committee on Commerce reported it out favorably on 19 Feb. The report sets forth that BALCLUTHA was the only Hawaiian-owned vessel that came under Hawaiian ownership since 12 Aug. 1898 that had not been granted a U.S. register, and that the Collector at Port Townsend had issued a certificate of protection to her under seal in accordance with Art. 62 of the customs regulations. The House Committee on Merchant Marine & Fisheries also reported out their Bill favorably on 25 Feb. 1901, noting that she had been bought by L. D. Spencer, a Hawaiian citizen on 8 Aug. 1899, granted a Hawaiian register the same day, and sold to Pacific Colonial Ship Co. on 2 Aug. 1900.

We come now to the last day of the 2nd session of the 56th Congress, officially Saturday, 2 March 1901, though still going strong on Monday morning. Mr. Kahn's bill, by unanimous consent, was brought up for consideration. In the debate it was pointed out that she was the last of the Hawaiian merchant marine not under the U.S. flag, and the amended bill, including only BALCLUTHA (thus eliminating two other foreign vessels seeking American registry with her) was passed and sent to the Senate. The Senate Committee on Commerce, abandoning S5542, reported out the House Bill, the Senate passed it, both the Senate President and the Speaker signed the act.

1902 31 Mar. on loading berth BALCLUTHA was chartered by Alaska
Packer's Association

PART III: VOYAGES TO ALASKA IN THE SALMON TRADE

(The following research into BALCLUTHA's Alaska service and the synopsis of her Alaska Packer voyages are the work of Harold Huycke, Seattle, Wn.)

Voyage 15

1902 8 Apr. sailed from San Francisco, Capt. Bremer

22 Apr. arrived at Loring, Alaska

2 Nov. sailed from Loring

14 Nov. arrived at San Francisco

BALCLUTHA was probably laid up during the winter. She could not have gone offshore (except to Hawaii) and unlikely she was engaged in the coastwise trade.

Voyage 16

1903 24 Apr. registered at San Francisco. E. Bremer, master;
owner: Puget Sound Commercial Co. 2158/4300,
Port Gamble; Charles Hirsch of San Francisco
1075/4300; Holmes Investment Co., Inc.,
890/4300; Port Blakeley Mill Co. 177/4300

Home port: Port Gamble

(Thus Pope & Talbot Co., through their Puget Sound Commercial Co., are shown to be now holding a majority of shares in the vessel, leading to her registry at their Port Gamble. The 1904 Lloyd's Register shows the vessel's owners at Puget Sound Commercial Co., whereas in 1902 it was still Pacific Colonial Ship Co., (the J. J. Moore interests).

24 Apr. Capt. Bremer cleared ship for Ladysmith, British Columbia (had been laid on loading berth 13 April)

25 Apr. sailed from San Francisco

13 May arrived at Karluk, Kodiak Island, Alaska

4 June sailed from Karluk

23 June arrived at Mansimo, British Columbia

1903 July shifted Nanaimo to Port Townsend

9 July enrolled at Port Townsend

30 July sailed from Port Townsend

30 Aug. arrived at Karluk Station, Alaska

sailed from Karluk

16 Oct. arrived at San Francisco

(probably laid up during winter; no record found for her loading lumber in Northwest for coastwise trade)

Voyage 17

1904 20 Apr. on loading berth, San Francisco
Capt. Bremer

26 Apr. registered at San Francisco

26 Apr. Capt. Bremer cleared ship for Ladysmith, B.C.

27 Apr. sailed from San Francisco

16 May wrecked on Geese Island, a small
island south of Kodiak

20 May wreck purchased by Mr. William Muan for
Alaska Packer's Assn. for \$500.

According to Mr. John Rankine who went north with Captain Wagner and the salvage crew (Rankine was signed on as ship's carpenter), the plates along the port bilge of the vessel were sprung or opened from fore to mizzenmast and the sea was free to enter. Rankine says that Muan secured several large loads of empty barrels from the Alitak cannery and filled up the hold before pulling the vessel off into deep water. The vessel was towed to Chip's Cove for temporary repairs, Capt. Gus Green in charge. When "Levi G. Burgess" arrived next spring, Rankine says they found two squawmen living aboard with their families, looking after the ship. (Capt. Gus Green and Capt. Jackson, another old hand around Southeastern Alaska.)

3 Oct. sailed from Chip's Cove (Alitak?) for
San Francisco, but forced back to Chip's Cove

11 Oct. towed to Lazy Bay for the winter. Ship
dragged ashore, receiving additional damage.

San Francisco. Home port, San Francisco

-13 Feb. registered at San Francisco. Owner, Alaska Packer's Association.

25 May Repair material, pumps and crew (including John Banksee) in command of Capt. Nicholas Wagner arrived at ship for repairs, being brought north by bark LEVI G. BURNESS. BALCLUTHA was hove down on the sandflats, deadwood being buried at low tide, and tackles rigged from them to the topmast heads. Broken rivets were driven out and replaced with bolts to draw the plates together, caulking being effected with baulks of soft pine, sheet lead, canvas, white lead. Work could only be carried on at low tide. Steam donkey installed on deck alongside mainmast, powering pump just underneath it in the 'tween decks. Vessel pumped clear and sailed from Lazy Bay on 12 July.

7 Aug. arrived at San Francisco

14 Sept. went into United Engineering Works

1906 (?)

10 Nov. enrolled San Francisco; name changed to STAR OF ALASKA by Act of Congress of 29 June 1905; owners, Alaska Packer's Association; Capt. N. Wagner, master.

Voyage 18

1906 15 Mar. on loading berth, Capt. N. Wagner

27 Mar. sailed from San Francisco

18 Apr. Day of Fire and Earthquake in San Francisco, vessel made 63 miles in one four-hour watch, according to letter from Capt. Wagner

19 Apr. arrived at Chignik, Alaska, 25 days

7 Sept. sailed from Chignik

22 Sept. arrived at San Francisco, 15 days

Voyage 19

1907 26 Mar. on loading berth, Capt. C. A. Halverson

6 Apr. sailed from San Francisco

22 Apr. arrived at Chignik, 18 days

12 Sept. sailed from Chignik

1907 27 Sept. arrived at San Francisco, 15 days

Voyage 20

1908 29 Jan. on berth, Filbert St., Capt. Halvorsen

1 Feb. sailed from San Francisco

9 Feb. arrived at Bellingham, 8 days

1 Mar. sailed Bellingham

8 Mar. arrived at San Francisco

Voyage 21

1908 25 Mar. on loading berth, Capt. Halvorsen

31 Mar. sailed from San Francisco, 42 whites, 99 Chinese

19 Apr. arrived at Chignik

10 Sept. sailed from Chignik, 71,299 cases salmon

22 Sept. arrived at San Francisco, 12 days

Voyage 22

1909 11 Mar. on loading berth, Capt. Halvorsen

30 Mar. sailed from San Francisco

16 Apr. arrived at Chignik, 17 days

12 Sept. sailed from Chignik

23 Sept. arrived at San Francisco, 11 days

Voyage 23

1910 10 Mar. on loading berth, Capt. Halvorsen

26 Mar. sailed from San Francisco

17 Apr. arrived at Chignik, 24 days

7 Sept. sailed from Chignik

23 Sept. arrived at San Francisco, 14 days

Voyage 24

1911 24 Feb. on loading berth, Capt. Halvorson
 1 Mar. left berth
 14 Mar. consolidated enrollment and licenses
 15 Mar. sailed from San Francisco
 3 Apr. arrived at Chignik, 19 days
 9 Sept. sailed from Chignik
 22 Sept. arrived at San Francisco, 13 days

Voyage 25

1912 3 Mar. on berth, Capt. Halvorson
 15 Mar. sailed from San Francisco
 3 Apr. arrived at Chignik, 19 days
 9 Sept. sailed from Chignik
 23 Sept. arrived at San Francisco, 14 days

Voyage 26

1913 6 Mar. on berth, Capt. Halvorson
 14 Mar. tonnage changed to 1862 gross, 1590 net
 15 Mar. sailed from San Francisco
 7 Apr. arrived at Chignik, 23 days
 30 Aug. sailed from Chignik
 9 Sept. arrived at San Francisco, 10 days

Voyage 27

1914 18 Mar. on berth, Pope & Talbot dock,
 Capt. Robert Johnson
 24 Mar. to pier 54
 31 Mar. sailed from San Francisco
 19 Apr. arrived at Chignik, 19 days

11 Sept. arrived at San Francisco, 11 days

Voyage 28

1915 21 Mar. on berth, Capt. Johnson
2 Apr. to stream or shift to another dock
8 Apr. sailed from San Francisco
30 Apr. arrived at Chignik, 22 days
26 Aug. sailed from Chignik
7 Sept. arrived at San Francisco, 20 days

Voyage 29

1916 20 Mar. on berth, Capt. Johnson
23 Mar. left berth
4 Apr. sailed from San Francisco
29 Apr. arrived at Chignik, 25 days
17 Sept. sailed from Chignik
11 Oct. arrived at San Francisco, 24 days

Voyage 30

1917 27 Mar. on berth, Capt. Johnson
3 Apr. sailed from San Francisco
27 Apr. arrived at Chignik, 24 days
16 Sept. sailed from Chignik
30 Sept. arrived at San Francisco, 14 days

Voyage 31

1917 12 Dec. delivered to U. S. Shipping Board at Pier 28
16 Dec. sailed from San Francisco

1918 10 Jan. arrived at Honolulu, 27 days
28 Jan. sailed from Honolulu, sugar
11 Feb. arrived at San Francisco, 14 days
20 Feb. redelivered to Alaska Packers Assn.
by Shipping Board

Voyage 32

3-6 Apr. on berth, Capt. Johnson
6 Apr. sailed from San Francisco
29 Apr. arrived at Chignik, 23 days
3 Oct. sailed from Chignik
19 Oct. arrived at San Francisco, 16 days

Voyage 33

1919 31 Mar. on berth, Capt. Johnson
5 Apr. sailed from San Francisco
27 Apr. arrived at Chignik, 22 days
23 Sept. sailed Chignik
5 Oct. arrived at San Francisco, 12 days

Voyage 34

1920 31 Mar. on berth, Capt. Johnson
9 Apr. sailed from San Francisco
27 Apr. arrived at Chignik, 18 days
2 Oct. sailed from Chignik
13 Oct. arrived at San Francisco, 11 days

Voyage 35

1921 11 Apr. on berth, Capt. H. P. Jensen
16 Apr. sailed from San Francisco
13 May arrived at Chignik, 27 days
25 Sept. sailed from Chignik
9 Oct. arrived at San Francisco, 14 days

Voyage 36

1922 29 Mar. on berth, Capt. H. P. Jensen
5 Apr. sailed from San Francisco
23 Apr. arrived at Chignik, 18 days
8 Sept. sailed Chignik
28 Sept. arrived at San Francisco, 20 days

Voyage 37

1923 27 Mar. on berth, Capt. H. P. Jensen
10 Apr. sailed from San Francisco
5 May arrived Chignik, 21 days
2 Sept. sailed Chignik
22 Sept. arrived San Francisco, 20 days

Voyage 38

1924 27 Mar. on berth, Capt. Jensen
4 Apr. sailed from San Francisco
6 May arrived at Chignik, 32 days
4 Oct. sailed from Chignik
17 Oct. arrived at San Francisco, 13 days

1925 24 Mar. on berth, Capt. Bertoneini.
(Gordon Grant a passenger)
26 Mar. on berth (second deck?)
4 Apr. sailed from San Francisco
29 Apr. arrived at Chignik, 25 days
14 Sept. sailed Chignik, in tow of SS ALITAK
arrived Alitak to load surplus pack
28 Sept. sailed Alitak
arrived San Francisco

Voyage 40

1926 25 Mar. laid on loading berth, Capt. M. Mortensen
3 Apr. sailed from San Francisco
17 Apr. arrived at Chignik, 14 days
9 Sept. sailed Chignik
20 Sept. arrived at San Francisco, 11 days

Voyage 41

1927 28 Mar. on loading berth, Capt. M. Mortensen
7 Apr. sailed from San Francisco
30 Apr. arrived at Chignik, 23 days
2 Oct. sailed Chignik
23 Oct. arrived at San Francisco, 21 days

Voyage 42

1928 26 Mar. on loading berth, Capt. M. Mortensen
3 Apr. sailed San Francisco (racing STAR OF ENGLAND,
Capt. Wisco)
22 Apr. arrived Chignik, 19 days
6 Oct. sailed Chignik

1928 21 Oct. arrived at San Francisco, 15 days

Voyage 43

1929 30 Mar. on berth, Capt. C. Peterson

6 Apr. sailed San Francisco

25 Apr. arrived Chignik, 19 days

4 Oct. sailed from Chignik

23 Oct. taken in tow by SS CHILKAN 6:45 AM

25 Oct. arrived at San Francisco, 21 days

Voyage 44

1930 27 Mar. on berth, Capt. C. Peterson

2 Apr. sailed from San Francisco in
tow of SS ARCTIC

11 Apr. arrived at Chignik, 9 days

7 Sept. sailed from Chignik in
tow of KVICHAN

16 Sept. arrived at San Francisco, 9 days

Laid up on arrival. STAR OF ALASKA's voyage in
1930 was the last voyage of a sailing ship to
Alaska for the Alaska Packer's Association.

19343 Sold to Frank G. Missinger for \$5,000.

BALCLUTHA

HISTORY

"BEFORE THE MAST IN THE BALCLUTHA DURING HER MAIDEN VOYAGE TO SAN FRANCISCO, 1887" (Norman J. Pearce, Master Mariner)

As I was born and bred on Mylor Creek, Falmouth Harbor, with the love of the sea in my bones, and with several uncles, brothers of both my parents, shipmasters, but all in the coasting trade, I just had to follow them. It was not long before I craved for something more--big square rigged ships and foreign travel. Nothing would suit me but the highest certificate.

After several years in small coasters, I thought it was time to do something more. It meant at least one year in a foreign-going square-rigged sailing ship.

A friend of my father was a ship broker at Cardiff, so being there at the time, I asked him what chance I had of getting such a trip. His answer was, "we are brokers for a new ship loading coal at Penarth for San Francisco, and she will sail this week. She is a new ship called the Balclutha and we can get you a berth as an A.B. on her."

It was soon fixed up and two days later I had signed articles to join her the following day. The ships in Penarth dock were full-rigged, barques, steamers--ocean-going and coastwise--and several small sailing coasters. All these ships were loading coal for different parts of the world. I don't remember using the capstan, as we were towed away from the dock soon after we joined her. The screw tug left us west of Lundy Island and we headed down the Bristol Channel and Irish Sea under full sail.

You may guess how I felt up aloft on a topsail yard unfurling sail. I don't know that I had ever been on a yard arm before, but I had to do the same as the rest of the A.B.'s who were mostly seasoned square-rigger sailors. I suppose I managed all right, being young and adaptable, and was soon accepted by them all except a young Australian about my age. He had signed on as Ordinary Seaman and thought himself as good as me, for he certainly had more square rig experience than I. However, we settled down all right although we were a mixed crew including several half-castes from the West Indies, good sailors, one Brazilian, some Scandinavians, also good handymen. The rest were British.

There were four apprentices, all Scotch and first voyagers. The Captain was from London, a gentleman; the first mate from Jersey (not a bad fellow but very irritating at times, and holding a Captain's certificate); the second mate from Plymouth with a first mate's certificate, a nice chap; the third mate was fussy and wanted to fight me; the fourth mate, easy going. Both the latter held 2nd mate's certificates and had evidently served their time as apprentices in some other ship. I was in the first mate's watch.

The first incident I remember well was my bed, bedclothes and some of my kit being washed out on deck through the door. As it was a new ship there were

BALCLUTHA
MAIDEN VOYAGE

✱

no plugs for the hawse pipes and with the first dive she made in the Irish Sea, she shipped most of it (or so it seemed to me) through the pipes and as my bunk was well forward, it was quickly washed out with the flood. We tried stuffing with empty bags and some of our clothes, but we made a poor job of it for they were washed in again. We just had to make the best of it until the Carpenter made plugs to fit and then we had to wait for the cable chain to be unshackled from the anchor and drawn inboard through the pipes, which was always done at the beginning of a long sea voyage.

That was the wettest time we had in the forecastle for it turned out to be fairly dry and comfortable all through the worst weather rounding Cape Horn.

It was but a few days before we were in warmer weather with everything proceeding smoothly. We had a busy time for there is always plenty to do in a new ship. One thing I noticed, although not a deep sea sailor, was that her mast and topmast were in one piece. I wonder if they are the same today.

We were by this time used to our Board of Trade fare, "Pound and Pint" we called it in those days. I remember some doggeral on that point:

"Pork and Peas, as much as you please,
Beef and Duff, not half enough,"

Our cook, an elderly coloured man and quite a decent fellow, did his best with what he was allowed to use but it was not much for us young chaps.

We had an uneventful trip through the North Atlantic, the Doldrums, and the South Atlantic, signalling several ships whose names I cannot remember, with a Pampero off the River Plate, and then when off Staten Island near Cape Horn, we were on the fore yard taking in sail as the wind was increasing to a gale, when we saw a water spout just ahead. It passed our bows near enough to give us all on that yard a scare. I had heard of such in my limited experience, but had never seen anything like it before.

While trying to round the Horn some time later, the South American sailor fell from the yard forward, struck the bulwarks and fell inwards on the deck. His injury was only a dislocated shoulder from which he recovered before we got to warm weather.

After beating about for three weeks in heavy gales, but without seeing ice, we had a slant of wind which took us into the Pacific and then up the coast.

I remember one night off the Horn all hands being called to wear ship as another ship was approaching us on the other tack. It being our place to keep clear, and having only small sail, we could not tack, and so had to wear. It was a wild night, very dark and cold, and we experienced an anxious time before we were out of danger. As I said before, the forecastle was not too wet, but it was cold coming in off watch at nights.

BALCLUTHA
MAIDEN VOYAGE

Sailing up the Pacific was a sailor's dream with fine weather until we were well north of the Equator. One incident often makes me laugh when called to mind. We had a Cardiff seaman who was working by the bowsprit when he espied a turtle floating alongside. He dropped his work and made for the ladder to the deck shouting to the first seaman he came to, "Tom, Tom, come and look at this great crab!"

Quite a time before we reached the latitude of 'Frisco we ran into northerly gales, not so heavy as the Cape Horn gales, but quite strong, and this delayed us a bit. Eventually we made the Golden Gates in very fine weather, took on the pilot and shortly after, the tug had us in tow. Sails were soon furled and we came to anchor well in the harbour....

At last (after a three month wait-Ed.) we were towed to the grain warehouses and loaded all our cargo there. I cannot recall anything about the loading so presume it must have been ordinary stowage. As we had only two or three A.B.'s to replace (they deserted when the ship came into harbor-Ed.), nothing untoward happened. We had another day ashore to do some shopping with our limited supply of cash...

We were towed shortly afterwards out to sea, cast off the tow rope as soon as we had an offing and with all sails set steered south on the return voyage. Fine weather prevailed down the Pacific and round Cape Horn and we had a fair wind up the Atlantic--nothing exciting except signalling a few sailing ships and an occasional steamer. So it continued through the trade winds and the Doldrums until about 200 or 300 miles from Ireland when we were speeding along with a strong westerly wind.

I was at the wheel when the wind changed suddenly to the east and the sails went flat aback. The first mate came running on to the poop, and the look he gave me and the words he used (YouJonah, you are determined to get that twelve-month service in somehow!) I shall never forget.

The headwind delayed us somewhat but eventually we arrived off Queenstown where pilot and tug soon took charge and we anchored in the harbour where we stayed several days. Our orders then came and a tug towed us to Fleetwood. We lay at anchor for a few hours, then were taken off by launch to the shipping officer and paid off.

That was the last I ever saw of the Balclutha and most of her crew. The voyage lasted 12 months and 6 days, and the only land we saw during the voyage was when passing Cape Horn on our homeward trip.

PART I

BEATING OUT OF BRISTOL CHANNEL IN THE WINTER

OF '94: SHIP "BALCLUTHA"

A reminiscence by Capt. Alfred H. Durkee

After spending about six years as master of wooden sailing ships, I determined on a change. I, therefore, resigned my command in Philadelphia and sailed for Scotland. Very soon after arriving there, I was appointed to command a large steel ship, the "Balclutha", whose owner was a Scotchman, a very fine man, and of whom I asked very particularly about orders when to leave port in case of bad weather, as it was then winter. He said I was to use my own judgment, as I had previously done; if the weather did not look good to me, stop in port until I thought it prudent to go out. The ship was loaded with coal and lying in Barry, a port near Cardiff, Wales, and up the Bristol channel, one of the worst places to get out of in winter.

I waited a day or two for the weather to clear, and then one fine morning we started, my wife being with me. We had a large tug boat ahead towing us out, but before we got outside the channel the wind began blowing up, and very soon we had a heavy gale and high sea, so the tug could scarcely make any headway. However, they kept on towing until after a time the hawser broke, and we were adrift. The wind and sea were too high to get another line out, so there was nothing to do but get some sail on the ship and turn back, the tug showing us the way to anchorage, as I was not familiar with the harbor.

We reached anchorage in safety, and anchored with a heavy sea rolling in, making it extremely dangerous to bring the ship up. The tides in the Bristol channel turn swiftly, and rise to a height of some twenty feet. We lay there several days, seeing ships start out and come back again, and anchor all around us.

One morning it looked so fine we weighed anchor, but I was sorry before we got far, as it again commenced to blow up. However, the tug got us out and cast off the hawser and although it was blowing hard we got sail on the ship as fast as possible. But the wind kept hauling more and more westerly, and the gale increased so that it soon became apparent that we were in for more bad weather. We stood over for the northern shore on a port tack, thinking if we could get well to the northward the wind might favor us and allow the ship to make a good leg out to sea. When we got far enough it became a question of getting the ship around on the starboard tack. We had the men aloft making fast some of the sails, as it was by now blowing a heavy gale. The ship was

rolling badly and shipping great quantities of water, washing overboard everything movable around us, including our chickens and two pigs. While the men were still aloft the sea suddenly gathered and a huge roller struck the ship, and with a great roll she went over on her side, shifting the coal, and there she lay with her lee deck full of water.

The men up aloft had great difficulty in holding on and getting the sails fast, but eventually we got them down and began trying to get the ship around. But, as we were lying over so far the men could not stand on deck without holding on to something, so ropes were stretched across the ship and made fast. They are called life lines, and that they certainly are, for they have saved many a man from being washed overboard. In our case, we very nearly lost two of the men, which rather took the heart out of all of us. However, after much difficulty and danger we got the ship around and began running back for anchorage.

By this time the weather was rather thick and it was very fortunate that my mate was familiar with the channel, otherwise we might have run on one of the sandbanks. We reached the harbor and anchored 80 fathoms (or 480 feet) on one chanin, 110 fathoms (or 660 feet) on the other. We then had a job ahead of us to get the sails repaired, the cargo shifted over, and the ship straightened up. We got help from shore and after three days of hard work were ready to try the sea again.

The steward we had that time was a peculiar sort of a fellow. He would go into the cabin and tell my wife what was going on up on deck -- how the men were working in the water up to their waists trying to get the yards around -- the seas completely covering them at times -- the boatswain washed overboard and with the same wave washed back again -- all the chickens and pigeons washed away -- "and those two fine big fat pigs gone clean away squealing, God bless them."

We used to carry pigeons to sea, not only for food, but because they were great company flying over the ship, and, of course, got quite tame. If my wife were making the voyage with me, she would nearly always bring food with her when she came on deck, and it did not take long for the pigeons to know it. They would fly down all around her, a beautiful sight. Sometimes we would lose one or two if a sudden squall came on so strong that they could not fly back to the ship. In one case there were two carrier pigeons among the lot I bought, and the first time I let them out they commenced flying up in the air, and ascended, flying in small circles, until they were nearly out of sight, and then started back in the direction of England. But how they knew where to go was a mystery, for we were many miles from land.

One fine morning, after the "Balclutha" was repaired, many of the ships went out, but I did not go as it did not look very good to me. Sure enough, before they got outside the wind came in again and began blowing up and we soon had a sea, and some of the ships coming back. One of them, a wooden ship, came near and anchored, and although we felt sure she was too near us we could do nothing with the gale that was blowing. We on land think it is blowing hard when a gale is 50 or 60 miles an hour, but in this case it was blowing in some of

of the squalls a hundred miles an hour as recorded by instruments on land. We saw several ships dragging their anchors and one of two of them broke away and were towed into a place of safety. When the tide turned, the wooden ship next to us broke her shear and one of her anchor chains and came over alongside of us, and there we were, a steel ship and a wooden one, side by side, lying in the trough of the seas, both ships rolling heavily, their yards catching into each other's, breaking away some of the sails which began banging in the wind, having carried with them some of the yards and masts. At times, one ship would be on top of a wave and the other in the hollow, and then they would come together with a crash, and a tearing, rasping, crushing noise, which with the ropes and yards breaking, sails torn and banging, officers and men shouting, and above it all the howling of the wind through the two ship's rigging. It was a scene and a sound one could never forget as long as he lived.

When I was a boy in the old country schoolhouse, we had a sentence in grammar to parse which I have always remembered. It was taken from Washington Irving's story of a voyage he made in a sailing ship from America to England many years ago. I think he was describing the weather before a storm came on, and he said, the whistling of the wind through the rigging sounded like funeral wailing. There is often a peculiar whistle to the wind at sea before a gale, one might call it a moaning or sighing. We always felt sure there was a storm coming when we heard it, but after we got the wind, it would change to a shrill shriek sounding like ten thousand devils.

In this case with two ships close together, the shrieking of the wind was of course greatly magnified. The wooden ship was on our lee side and the captain tried by setting a couple of staysails to get his ship away, for she was suffering the most as she was not as strong as our steel one.

The captain of this wooden ship had been recently married. His wife was a sister of the British consul at Barbadoes, and this was her first voyage at sea. Above the crash and tearing we could hear her screaming when the two ships collided, for there was great danger that we would all be lost before any help could get out, as it was night and very dark. We sent up distress signals for help, and one of these the mate got in the socket the wrong way, and instead of going up it went across the deck, burning his hands, and leaving a long black scar across the deck.

Life boats started out in answer to the signals, but about that time the ships parted, and as we did not continue sending up signals, they returned after rowing about for some time. Tug boats came, as they are always on the look-out for some extra job, but as we were apparently in no danger of sinking, I sent them after the other ship, which was now adrift and burning her tar barrels on deck for distress signals.

After the collision, I sent my carpenter to sound the pumps, but he was very excited and gave me the wrong soundings. After a while, I sent him again, when he gave me more water in the hold, at that rate it was only a question of time when we would sink. Our steel plates were about one-half of an inch thick and with the heavy pounding we were re-

ceiving, it was not at all unlikely that a hole might be pierced through one of them. When it was all over, I went with him to the pumps, and after carefully sounding several times, he had to admit that he was mistaken. We had got our boats ready to launch and the life belts handy. The cabin boy was so excited he got a life buoy around his waist -- a large round buoy that is thrown overboard in case a man is in the water. Of course he should have put on a life belt, which would not have been much in the way. But the buoy around him took up a lot of room, so that when he came up to get on deck he got stuck in the doorway, and there my wife found him shouting for help. By lowering one side and lifting the other, she got him through easy enough.

When daylight came we found our plates along the water line had been badly indented, so it was considered necessary to go into dry dock and have them removed. We were there two weeks getting repaired. One morning I was going ashore with my wife when, with a little moan, she dropped at my feet. After much difficulty we got her on board the ship and a doctor summoned. We then had to get her ashore in comfortable lodgings, and the best doctors in the two cities to consult. They assured me that it was only a question of time when she would be well again. It was the excitement of the bad weather and the collision that had brought on her illness; so I had to sail away leaving her in Wales.

After all repairs were made we started again, and finally got out to sea, although we had to work out against head gales. We met more head gales long before we reached the Horn this voyage, and when we had Staten Island abeam, trouble began in earnest. It is always a case of continually watching the weather. One often shortens sail, makes it again, and again takes it in during the course of a day. Sometimes making a good leg to the southward the captain dislikes to tack and stand back, so he keeps on and runs so far south that there is danger, if the wind should come around from the southward, that he would get his ship frozen up. One voyage I got down to 60 south, but in that case the wind hauled a little and we reached around without much trouble. This time, however, there was no such luck. We had gale after gale until finally a large portion of the crew was laid up sick, either with fever, or salt water boils. No one who has not been there can imagine the strain on the captain in trying to get around Cape Horn with a succession of heavy gales against him. If he works up too near the land and gets caught on a lee shore he knows there is nothing but a rocky coast for him, and if in winter, ice and snow. Even if one got on shore it is a serious question how the natives would treat him. This passage in the "Balclutha" was about my hardest time in getting around. It is only a couple of hundred miles, but to do that is the rub. We were this time three weeks doing it. It was a mighty relief when the stern Cape was behind us and bad weather over for a while.

Off the Horn, we saw a ship hove to, no doubt burying one of the crew. Cases have been known when two ships have been hove to within sight of each other off the Horn, each burying someone. It is a hard task for the captain, especially when it is a wife or child.

From the Horn up to Iquique we had fine weather and made very good time. But the whole trip was a great disappointment to me. It being my first voyage in a steel ship, I was anxious to make a good

passage, whereas with the head gales I was about thirty days too long.

Sailing ships arriving at Iquique anchor in the outer harbor. The captain then goes ashore, enters the ship at customs and from the harbor master secures a berth, after which he engages a tug boat and moves his ship into the inner harbor. there mooring her with two anchors out. Most sailing ships take coal to Iquique, and the only cargo to load is nitrate of soda. The nitrate from the mines is brought in on the railway, although from many of the smaller mines, it is brought in on pack mules, in large bags ready for shipment, weighing about two hundred pounds each.

The coast of Chile for several hundred miles is nothing but sand, with so much nitrate mixed with it that nothing will grow, especially as it never rains on this part of the coast. Whatever shrubs and flowers there are in the city park must be set in large tubs in soil brought in by some of the coasting steamers. This time, while I was in Iquique, I remember someone, probably from one of the ships, put up a sign in the park, "Please keep off the grass." As there was not a blade of grass to be seen, it made the Chilean officials rather hot, and they offered quite a large reward, hoping to find the one who did it. In Iquique, it would take a couple of months to discharge a cargo of coal and load another of nitrate, and we used to be glad enough to sail away and leave such a desolate country.

When we arrived in port I expected to find an Austrian ship which had sailed from Cardiff ahead of us. This ship was bought in England by an Archduke of Austria, or his agent. I happened to know the captain who sold the ship to him. This man was the Emperor of Austria's son, who married a celebrated Austrian singer and dancer, and as a consequence of this act, relinquished all claims to the throne. He was so very much in love with her, and so jealous, that he wanted her away at sea so they could love each other until they were tired. He had the ship fixed up, and had a captain to sail her; she loaded a cargo of coal and sailed, and this man and his wife were supposed to be on board, but the ship never arrived at any port, so they must have gone down.

CATCHING TURTLES IN THE NORTH PACIFIC SAN FRANCISCO TOWARDS CAPE HORN: SHIP "BALCLUTHA"

Coming home from San Francisco and down near the line in the Pacific Ocean, we caught a couple of dozen turtles. It had been rainy and cloudy for two or three days, and then the sun came out hot, when we found them asleep on the water. As there was a very light wind and the ship going slow, we put out a small boat which a man skulled; you could not row it for that would wake them up. Another man would get in the bow and they would gently come up on the turtle. If it was a small one, he would lift it directly into the boat, but if a large one the man would turn it over on its back, then the two of them would get it up over the side. They had to be careful however, for if they took hold of it near the head, they would get bitten.

One sailor, I remember, had just bought a shirt out of the slop chest, and he had the sleeve torn off by the turtle. He came to me and wanted to know if I would not give him another one, but I told him it was better to lose his shirt than it was to get bitten. Another man was dared to put his finger in the turtle's mouth after his head was cut off; of course the whole crowd of them were around there, laughing and making sport. This fellow was a German, but he did not want to be dared, so he put his finger in and got caught, for the jaws contracted and bit him badly, so that he came to me to have the wound done up.

The turtle apparently retains life after its head is off, longer than anything known, although they used to say when I was a boy in the country, that a snake would not really die until sunset, even if killed during the morning. We put the turtles in the boats and changed the water twice a day, trying to keep them as long as possible, but they did not live very long. I learned afterward that the whalers came down there among the islands, and caught lots of them, but gave them nothing to eat or drink, and they lived a long while. If we could have taken them to London where we were bound, I would have sold them for several pounds each. However, I kept a lot of the shells, which I gave to the Ship Owner, and no doubt they are still in his very fine house and garden on the river Clyde in Scotland.

A testimonial to Captain Durkee signed by the crew of the "Balclutha" and tendered him during a passage from San Francisco to Falmouth in the winter of 1897:

Oh, Captain Durkee, if you please,
Read these lines when you're at ease.
READ to the bottom, sir, and then
You'll see it's signed by all your men.
You have shown us, sir, by your behavior
You respect the birthday of our Saviour.
And we have no doubt, we do not fear,
But you'll respect the coming year.
Nations differ, sir, we don't object,
Which days deserve the most respect.
The fond remembrances, the splendid dinners
One brings of Him who died for sinners.
That day is past and for the next we wait
With the plentiest bounty of the good and great.
All hail! the day approaches and
With joy bells ringing on the land,
The people swarm to church to give
The Lord their thanks that let them live
The old year out and new year in,
Still knowing they doth live in sin.
So, Captain Durkee, our thanks we send
To you as you're a sailor's friend,

And as our Father "who art in heaven,"
 Brought you all right through '97,
 To Him we pray 'ere it be late,
 To bring you safe through '98.
 Relying on that power divine,
 For peace and plenty 'til '99.
 And we bow to heaven and do implore
 May discord ever pass your door.
 And when your sailing days do end
 May you be honored as a sailor's friend.
 May you find a grave in some secluded shade,
 And rest in peace when your great debt is paid.
 Then a tablet raised by people who
 Men judge by what they did or do,
 Record the merit they should not miss.
 The epitaph may read like this:

Epitaph

An ocean traveller, year after year,
 A prompt commander, not knowing fear,
 This stone erected, all may know and see,
 Here lies a man, A. H. Durkee.

To write our names we don't know well,
 One-half our number cannot spell.
 We are different creeds with different views,
 Opinions different, vides the news.
 Ideas different, different cause,
 In nations born with different laws.
 Each came to represent a man
 And will act as near it as he can.
 Though different paths we all have trod,
 We worship, sir, no different God.
 With all our differences, all agree,
 Submission to A. H. Durkee.

BALCLUTHA

HISTORY

From a manuscript by Captain C. Johansen, mate of the Star of Alaska.
From the Library of the National Maritime Museum, San Francisco.

The British shipbuilding firm of C. Connell & Company on the River Clyde in Scotland, was one of the oldest and most well known shipbuilders of square-riggers, and goes back as far the 1850's when they built some of the famous British tea clippers. The ship "Balclutha" was another square-rigger built in the C. Connell's yard. She was a beautiful model of a sailing vessel, rigged with single topgallant and royals on her three tops.

As it may interest the reader, I am setting forth here her rigging, spar and sail-plan as was sketched by Captain C.A. Halvorsen, and who was the Master of this ship for 7 years.

	Lenght of foremast. - Main mast. -- Mizzen mast		
From heel to deck, 22' 10"		21' 10"	22' 01"
" deck to truss -----	42' 06"	45' 07"	41' 08"
To "hounds -----	6' 06"	6' 06"	5' 10"
To Caps -----	15' 00"	15' 00"	13' 03"
To tresstle -----	29' 00"	29' 00"	28' 03"
To cap -----	9' 00"	9' 00"	6' 03"
To head of topgallant mast -----	17' 00"	17' 00"	15' 06"
To head of royal mast -----	16' 00"	16' 00"	13' 00"
Pole -----	6' 00"	6' 00"	6' 00"

Height from deck to truck ----- 141' 00" ----- 144' 00" ----- 129' 09"

Dimensions of her yards as follows:

	Fore and Main tops: To sheave hole. -- Yard arm.		Extrema length.
Fore and Main yards, steel -----	40' 05"	2' 06"	86' 06"
Lower topsail " -----	37' 00"	0' 06"	77' 00"
Upper " -----	32' 03"	1' 03"	68' 06"
Topgallant " wood -----	25' 09"	0' 8 1/2"	54' 00"
Royal " -----	19' 04"	0' 10"	40' 04"

Yards on the mizzen:

Lower Jack yard ----- steel ---	32' 03"	2' 03"	69' 06"
Mizz. Lower top sail -- " ---	28' 09"	0' 06"	59' 06"
" Upper topsail -- wood ----	24' 00"	1' 06"	52' 04"
" topgallant ----- " ----	19' 06"	1' 00"	42' 06"
" Royal ----- " ----	14' 08"	0' 10"	31' 00"

Diameter of her fore and main yards at the sling was 21 inches.
at the brace band 12 "

And her Cross Jack yard- $17\frac{1}{2}$ inches at the sling, and $9\frac{1}{2}$ inches
at brace band.

The extreme length of her bowsprit was 42 feet and 6 inches, and
of her spanker boom, which was made of wood 54 feet.

Her topmasts and bowsprit were all made of steel, and telescoped. Her canvas spread as near as I can figure out, was about 20,000 square feet, her two courses, the foresail and mainsail each having about 1900 square feet of canvas. Ofcourse, I mean canvas spread, and not including the dobling cloths, such as buntline and leachline cloths in the sails.

The "Balclutha" built for British owners, most likely was sailing in the nitrate trade in her early days, and must have been purchased by J.J. Moore for his Pacific Colonial line of ships at about the same time as the "Star of France" and "Star of Italy" and this way, the "Balclutha" first came under the Hawaiian ensign, and as with the other ships just mentioned, came under American flag in the same manner, by way of the territory of Hawaii. In very much the same manner, she came into the ownership of Pope & Talbot, and her registered homeport, and before she became a salmon ship, was Port Gamble, Wash., and when the ship was running in the lumber trade to Australia.

The "Balclutha" came into the salmon fleet, in very much the same way, as the fourmaster you just read about came into the American merchant fleet, but in a different part of the world. It is an interesting chapter, so will try and describe it as it was written in her old logbooks:

It was in the spring of 1904, when Pope & Talbot were still the owners of the ship, that she was chartered for the Alaska Packers Association. She loaded about 1000 tons of cannery supplies in

luk, or it might have been Chignik, at any rate, the ship was heading for Shelikof Strait. She was in the command of Captain B. Bremar, who had a personal^{NF} of about 100 men onboard, and of which the cannery hands were in majority. She also had a deckload of sheeps and cattles, stuck in pens, for the cannery.

19 days later, the ship was approaching the Trinity Islands, and evidently, the Old Man was either not very well acquainted around this locality, or he might have been out in his reckoning, in any event, the vessel was about 45 miles to the northerd of Chirikof Strait where she was suppose to have entered, and must have been close to the entrance of Sitkinak Strait, which is just about impossible for a sailing vessel to try and enter.

Towards dusk in the evening of this 16, of May, the weather became misty and foggy, with a fresh southwest wind blowing, the ship was heading strait for the beach, and before anyone realized their mistakes, she struck on the reefs off Geese Island, about 3 or 4 miles to the northerd of Sitkinak Strait. They tried to hack her off the beach by backing yards, but the vessel was hard and fast, and no steamer or assistance were able to even get near her, as the sea was rough. It was close to midnight of the 16, and dark, misty and foggy. However, nobody onboard were hurt or in any kind of danger, and as you will see, it was not the finish of the "Balclutha."

Her crew must have got in communication with the Karluk station, probable by means of the life-boats, and from the cannery they sent out steam tenders, which must have took the men off the stranded ship, and also took some of the cargo off. In the mean time, the Alaska Packers bought the ship as she stood, from the

insurance underwriters, taking the chance of salvaging her, and have been told, that they got her for a song. But regardless, how cheap they got her, they most certainly had a job on their hands to get her off the beach, and back into sea worthy condition again. And here begins a most interesting story of salvage work, that I have ever heard of anywhere, when we take into consideration, the primitive gears the men had to work with.

Captain Gust Green, whom I later got acquainted with, took charge of the work, and with a good gang of men from Karluk, first got all the cargo discharged into lighters. Next, the ship was rigged down to her lower masts, and in the early part of September with a full moon tide, she was floated off, by means of lashing empty lighters alongside of her at low water, and as the tide raised she floated off, and was towed into Chip Cove in Alitak Bay by one of the steam tenders, probable the "Unimak," and where she was anchored.

While at anchor, her crew of 14 men, must have done some work from the inside on her damaged bottom, stopping most of the leaks. At any rate, in the later part of September, Captain Green with only one Mate and his crew of 14 must have been of the opinion that the ship was sea-worthy enough, for them to take a chance and sail her to San Francisco, trusting that the pumps would keep her afloat. So, they went to work and put ballast back into her, rigged up her spars, (all except the royal yards) banded sails and on the 3, of October started off for San Francisco.

But it looks like they were a little premature in their reckoning. The first day out from Alitak Bay, and while still being towed down the Strait, the Mate fell down into the lower hold from the tween deck, and was laid up. It was blowing a fresh easterly breeze, when at 9:30 AM., the same date, they set sails and drop-

ped the towboat. At 5:00 PM., the same date, the ship was abeam of Chirikof, and 8 miles off when they furled the fore and mizzen upper topsails, the wind had increased into a moderate gale. Steam was kept on the donkey boiler, and a rope messenger had been rigged from the fly-wheel of the pump to the winch in the donkey room and the pump was in operation continuously. At midnight, upon sounding the pump-well, they found 32 inches of water in her, beside ^{SHE} was getting a heavy list to starboard.

October 4, the wind had increased to a fresh gale, and the water was gaining on the pumps as the vessel became practically unmanageable. They furled the main upper topsail.

In the morning of the 5, th, the crew came aft and told the Captain, "that they flatly refused to sail the ship any further, and demanded for him to turn back, as they didn't want to drown like rats." Captain Green considered the matter, and as he says in his logbook: "As the Mate is laid up badly hurt, and I am all alone having charge of handling the ship, I think it is the best thing to do, turn back with the crippled vessel." So, at 6:00 PM., on October 5, she was weared around and headed back for Shelikof Strait, while the crew had to work hard, moving everything moveable in the tween-deck over to the port side in order to try and get her a little more on even keel. The pumps were working alright and the water in the pump-wells stood around 3 feet.

Close to midnight of the 6, they passed Chirikof again, and stood up Shelikof strait in somewhat smoother waters. However, they were cruising around in the strait up til October 18, before the steamer "Unimak" came and towed her into Chip Cove again, and where she was anchored up.

On October 19, she was moored for two anchors, and the three

topgallant yards sent down, and on October 21, the whole ore were removed from the ship, leaving only Captain Green with man on board to keep watch on the ship.

The next spring of 1905, Captain N. Wagner with a new crew from San Francisco were transferred from the bark "Levi G. Bu" on board the "Balclutha" and on May 25, Captain Wagner took charge of the ship. On June 5, she was unmoored and put on the port side to the land and hove over to starboard. (They found bottom of her badly damaged on the port side between the fore and main rigging.

June 15, while still at work on her damaged bottom, they covered the vessel resting on a rock, her keel broke, and soon her keel-plates badly dented. Of course, as soon as possible floated the ship again, and while keeping her afloat with the pumps, they moved her to a safer place on the beach where she again was hove over to starboard.

At low water, they dug a big pit in the gravel around her damaged platings, and bolted heavy wood-plankings over the bulwark plates, then cemented outside as well as inside of the planking. All the leaky rivet holes, and there were plenty of them, were plugged up with bolts and wood-plugs, and on the 25, of June, she was moved back into deep water again.

Ballast was put back into her again, her topgallant yards rigged up, all her sails bent, and on the 13, of July the ship left Alitak Bay, once again bound for San Francisco. Her draft upon leaving, was 12 Ft. forward, and 13'06" aft. The pumps were sounded every 2 hours, she was making very little water. On her home voyage, she made good time, and on July 26, was off the Oregon coast, and arrived in San Francisco Bay on August 1

only 20 days out.

"Upon her arrival, and all through the winter, the Alaska kers must have spent a lot of money on this ship. Her bottom repaired in drydock, and from there she was towed to the Packer yard, where shipwrights, riggers, sailmakers and all kinds of mechanics were working on her. New standing rigging was installed and all her old ~~halyards~~ ^{halyards} and dead-eyes replaced with screws on wire shrouds. Her poop-deck was extended forward, to within 10 feet from the mainmast, and quarters installed underneath. Oriental quarters were installed in her forward tween-deck with porthole glasses on both sides of the ship, in other words; she was in tip top condition as a salmon packet, when she in the spring 1906 was ready to load for Alaska. As I said: It must have cost a lot of money, but on the other hand, I believe it was well spent money, because, in the years to come, this ship certainly must have made a lot of money for her owners, as she had a long and glorious career in the salmon trade.

She became a Chignik ship, and was still in command of Captain Wagner this spring of 1906, when she had a 22 days passage to Chignik Bay. In the fall, she was loaded with 65 700 cases, and made the passage home in 15 days.

During the winter of 1906-07 her name was changed, and she became the "Star of Alaska." She also had a change of Masters this same winter, as Captain Wagner was transferred to the just bought up and illfated "Star of Bengal," Captain C.A. Halvorsen taken command of the "Alaska."

It used to be an old saying amongst the men sailing with Captain Halvorsen, that "he was handling his ship like it was a fishing boat or a sailing yacht, well! I was with him, and have

been with good many shipmasters in my sailing days but can't recollect of being with a man, with more confidence in himself as well as in the ship he had under command. He told me once, when I touched upon the subject, and the handling of his ship, and this was his very words; " It did happen a few times that I got caught with my pants down, but will have to admit it was my own fault and not the ship's." Yes, Captain Halvorsen was proud of the " Star of Alaska," and did'nt think there were a better one in the fleet.

He left with the ship on April 7, 1907. On April 15, she got in company with the " Star of Russia" and Captain B.J.Larsen, and for 5 days the two ships were sailing together closehauled for port tacks, both Skippers cracking on for all their ships could stand in line of canvas, and neither one able to shake one another. According to the " Alaska's" logbook, ; On the 18, and the 19, and while in company with the " Russia," the " Alaska " covered in a 48 hour period 518 miles, the wind was strong southwest and squally. The ship was closehauled as I said. The "Alaska" making her course more westerly and passed Chirikof on her starboard, the " Russia " heading up for Shelikof Strait, passed Chirikof on her port, thus the two ships parted company.

On April 22, The " Star of Alaska " sailed to an anchorage herself in Anchorage Bay, while it was blowing a strong southeaster and snowing heavy, 15½ days passage from San Francisco. The steam tug " Alitak " which was suppose to have met the ship outside and tow her to anchorage, had not yet arrived. In the fall, she was loaded with 70 894 cases when she left Chignik on September 12, and arrived in San Francisco Bay on September 27, and 15 days out, thus duplicated the passage of the previous year, exactly to the day.

In 1908, she left in March for Puget Sound in ballast and brought back a load of coal from Nanaimo. Sailed again for Alaska and had a 19 days passage to Chignik. In the fall, she came home in 12 days.

1909, she left on March 30 th. On the 8, of April one of the cannery hands was shot by another of his buddies, but only slightly wounded. Upon searching the quarters forward, the Captain confiscated 3 revolvers and a large knife, but was unable to make the men confess who had done the shooting. On April 10, at noon, the ship registered a distance of 285 miles from the previous noon. On this last midnight watch of 4 hours, she logged 53 miles, when at midnight they furled the 3 topgallant sails, mizzen upper topsail and the flying jib, so therefore, must have had plenty of sail pressure set up to midnight. The parral broke on the fore the gallant yard, and it was blowing a strong south-southwest with heavy squalls and swells.

On the 12, she was off Chankluit Island, and when she was tacking from and back in a head wind, until the 16, when she got fair wind and was headed in for Anchorage Bay, and where she came to an anchor the same day in the evening, 17 days and 10 hours out, and again she beat the steamer which was suppose to have picked her up. On her homeward bound voyage this fall, she registered for 5 consecutive days, a distance of 1054 miles, and made the passage in 11 days.

In 1910, she left on March 26th. On the 11, of April she was in the Gulf of Alaska, and this must have been one of the times Captain Halvorsen referred to, when he said " he got caught with his pants down." I quote his own personal log:

" April 11, began with a light northwest wind, but was gra-

dually increasing. At 1:30 PM., we began to shorten sails, and by 4:00 PM., had furled the 3 royals, the 3 topgallant sails, the flying jib and the mainsail. The wind was still increasing but not yet very strong.

But at 4:45 PM., the wind suddenly, from a moderate fresh, changed to a heavy gale. We lowered the 3 upper topsails, and called all hands on deck to shorten more sails, but in the mean time the main lower topsail sheet carried away, and drove the men on the upper topsail yard furling the sail, away from the yard.

We lost the fore upper and lower topsails, main upper and lower topsails, mizzen upper topsail and the outter jib. Also split the foresail. The mizzen lower topsail yard (steel) broke in the middle, and the weather yardarm bended up against the mizzen topmast stay at an angle of 45 degrees, and stood that way with the sail set. We shipped a lot of water on deck, and displaced the deckload while the running gears got jammed under the ~~and~~ deckload. End of quotation. And we go back to the Kate's regular log.

The next day, the wind was still blowing strong from the westward, but had moderated some, when the crew got busy clearing up the mess, and bended spare sails. She arrived 7 days later at Chignik, 24 days out, and the whole summer, the Captain with a couple of men were repairing sails. She made it home in the fall in 15 days.

1911, She arrived in Anchorage Bay on April 3, after a 19 days passage. As this is another episode in her Alaska career worth mentioning, I will again extract from Captain Halvorsen's personal log: I quote:

" April 4, at 10:00 AM., the Northwestern Fisheries ship

" Benjamin F. Packard " arrived, and anchored up in the Bay. April 5, at 2:30 PM., The Columbia River Packers ship " Jabez Howes " arrived and also came to an anchor. April 6, the day began with a light northwest wind, cold and snowing. The crew (on the "Alaska") started at 7:00 AM, to discharge cargo into lighters, and they loaded one lighter complete, and partly loaded another. Also discharged some freight for the Northwestern Fisheries and some gears into a small scow when it started to blow, and by noon was blowing a northwest gale, and the ship started dragging towards the beach. We dropped both anchors, with 74 fathoms of chain out on the starboard, which was the one the vessel was originally anchored for upon arrival, and 45 fathoms out on the port, but she still kept dragging. At 5:00 PM., she touched bottom with her heel, and later on, swung broadside up against a steep bank. However, the ship was resting easy, and at no time was she really stuck, as the bank was very steep, and the bottom very soft.

With much labor and trouble, we got the loaded lighters hauled around to the inshore side, where they were protected from the seas, which by now had coated them over with ice. April 7, at 4:00 A.M., this morning, the ship " Jabez Howes " hoisted her ensign upside down, and she was apparently filling with water. Shortly afterwards, she slipped her starboard cable which had held her head off the beach, then set her fore and mizzen lower topsails, and with the yards aback she forced herself as far up on the beach as the depth of water would allow. The " Benjamin F. Packard is also on the beach and unable to get off.

At 7:00 AM., the weather had moderated some, and we got

ready to get our ship out in the middle of the bay, and with the assistance of the " Alitak " and the " Equator " she was towed clear of the beach and out to her regular anchorage. At noon the " Jabez Howes " was full of water and became a total loss." End of quotation.

You have already read about what happened to the other ships on this occasion in a previous chapter. The " Alaska " came home this fall in 13 days.

In 1912, she had an 18 days passage to Anchorage Bay, and came home in 13 days, and when Captain Halvorsen sailed her in through the Golden Gate and to anchorage in San Francisco Bay.

In 1913, she had 23 days up to Chignik, and came home in 10 days and 4 hours, which I believe was her fastest passage.

In 1914, Captain Halvorsen became superintendent at the Alitak cannery, and Captain Robert Johnson became the Master of the " Star of Alaska," and when she made a passage of 19 days to Chignik. During the summer, and when Captain Johnson was on-board the ship on June 29, he has a notice in his logbook and where he mention that 3 life-boats with men in from the stranded whaling bark " Gayhead " came into Anchorage Bay, reporting, that their vessel stranded at Castle Cape on June 27, 1914, loaded with 9574 gallons of sperm oil, and became a total loss. And to give the reader an idea, how cheap sperm oil, as well as a wreck of an old whaling bark were in them days, Mr. J.Humes from the Northwestern Fisheries bought the wreck with the cargo for \$135.00 with the intention of salvaging it. If he made any money on the deal or not, I don't know.

Coming back to the " Star of Alaska." On the voyage to Chignik in 1915, the 26 th, and 27 th, of April, she was sailing in -

company with the Karluk vessel, the "Star of Scotland" of which you will read more about later. The "Alaska" had a 25 days passage to Chignik this spring, and came home in the fall in 12 days.

In 1916, she had 23 days up, and 13 days home. In 1918, again 23 days up, and came home in 16 days. On this her homeward bound voyage, and on October 9, she was in a south-southwest gale, when she shipped a heavy sea and her two after life-boats with the standard compass went overboard, the Mate on watch almost going over with it. 1919, she went up in 22 days, and came home in 12 days.

1920, I myself was a member of her crew, one of 6 on the second Mate's watch, and remember it very well. Bob Johnson was still the master of the ship, and Captain Halvorsen a passenger, having become the superintendent of the Chignik cannery.

We were towed out from the China Basin on April 9, and the "Star of Finland" right behind us, and bound for Alitak. We in the crew got a great kick out of it, when the time came to set sails and we dropped the towboat. The Finland somehow beat us to it, and had most of her sails set, while we were still mastheading our upper topsails. For a fresh northerd the "Finland" came roaring by us on our weather side, and so close, that she took the wind out of the few sails we had set. In the mean time, and while we were working like beavers, Captain Johnson was walking the poop uneasy, talking to himself and everybody. Looking at the "Finland" as she passed by, he shouted out loud; "You can't do that to me old girl, you just wait and we will show you."

Captain Halvorsen didn't say anything as he was too busy with his camera taking pictures of the "Finland" and she certainly must have made a pretty picture. On April 21, in a strong

east-northeast, (the wind was free) when the "Alaska" made a 24 hours run of 292 miles from the previous noon, and which is about her best run on record. 2 days later, we were in company with the "Finland" again, after being out of sight of each others since the third day out of Frisco. The "Alaska" arrived in Anchorage Bay on April 27, and close to 18 days out.

During the summer, Captain Johnson took sick, and was under doctor's care onboard the ship all the way home, Captain Halvorsen taking the ship home, and here is the occasion when I got a chance of observing his ability in handling of the "Star of Alaska."

We left Chignik on the 3, of October fully loaded with cases. 9 days later in the evening, it was blowing a strong southwest with rain-squalls. The Chief Mate's watch furled the 3 royals from 4 to 8 watch, and the Captain also had them putting preventors on the topgallant sheet whips. The vessel was close-hauled for starboard tack, and although I don't know what speed she was making exactly, but she sure was traveling through the water.

We relieved the Mate's watch at 8:00 PM., when it was already dark, and raining. We could see we were in for a dirty night. I relieved the wheelman who warned me, that she was heavy on the helm, - but was steering alright, full and by. Captain Halvorsen was standing up against the weather rail in front of me, never said a word as he was watching the ship. The second Mate stood up against the standard compass, and I presume, was also taking in the situation.

I had not been at the wheel more than 15 minutes or so, when a hard squall struck the ship, and she heeled over with her lee

bulwarks under water. While I hung on to the wheel, and the rain pelting in my face, a yell came from the second Mate " the gallant halyards." Ofcourse, he ment for his men to through the halyards off the pins and get the sails down, but I doubt it very much, if anyone was able to get at the halyards for a moment, the way she was heaving over, so nobody let go anything, and nothing carried away. All of a sudden she eased up on the helm, and as she became difficult to steer, I felt the wind in my backside. In the squall the wind had shifted a whole 8 points, and was now fair.

Captain Halvorsen now spoke up and said he had expected it to happen, and that the ship was on the right tack in case it would happen, telling me also to try and hold her on the course the best I could, while he gave the confused second mate order to square the yards. After everything was straitened out on deck, he also gave the second Mate order to set the royals, and than went below.

Early the next morning, while coming along for a strong north-west and everything set, we sighted Point Arena. Late in the afternoon about 6:30 PM., we passed Point Reyes, the wind still the same, and about 8:30 PM., when it was getting dark the wind having hauled more to the westward when we passed the San Francisco light-vessel, we braced yards again and headed her in for the Golden Gate. While sailing in through the main channel, all hands were called on deck, and the royals were furled as well as the mainsail, and while we were on the yards furling the sails, a red stack towboat came up, and reported he was sent out by the company to pick us up and tow us in, and our Captain shouted back to him, for him to stand by us while we were under sail.

I never will forget that night. While the smoke was belching out from the stack of the towboat, which ofcourse was trying the

best she could to keep up with the ship, Captain Halvorsen was close by the helmsman giving steering orders, as the ship roared through the Gate, at the same time ignoring all steamer light or whistles all around us, knowing full well, that as long as our side-lights were bright, we had the right-of-way.

Inside the Gate, we started to get the sails off her in a hurry, and was just about abreast of Alcatraz when the wind died out, and the towboat passed her hawser, while we were on the yard furling the sails in harbor fashion, and it was about 11:00 PM. when we dropped her mudhook on Mission Flat, 10½ days out from Anchorage Bay, and a bunch of us Alameda residents, including Halvorsen himself, managed to make the midnight ferry home to Alameda.

In 1921, Captain H.P. Jensen became the master of the "Star of Alaska" and I became chief Mate with Jensen, and was with him as such for 4 years. We had a 26 days passage to Chignik this year of 1921, and came home in the fall in 14 days. In 1922, we again raced the "Star of Finland" leaving San Francisco, and in so doing, carried away our three topgallant sails the very first day out, but made the passage up in 18½ days, although it took us 19 days to sail home in the fall.

In 1928, Captain M. Mortenson became the master of the ship, and this same spring, Captain Char. Wiese became the master of the "Star of England" which now was an Alitak vessel, had taken the place of the "Star of Finland."

As the days of the square-riggers in the salmon trade were now fast coming to an end, it seems like any amount of betting went on this particular spring, and amongst various former Masters of the two vessels, and also between some of the City offi-

oials, as to what ship would make the fastest passage to Alaska this spring. Wagers may not have been so high, but nevertheless, the racing spirit must have been there, as quite a crowd was on the pier seeing these two old windjammers off when they pulled out from the China Basin on the 3, of April 1928, and were towed to sea. The "England" and of which you will read some more about next, was a bark, and probably did not have quite the spread of canvas as the "Alaska" but anyway, the race was on, and both vessels heading for Chirikof Island.

On the 20, of April, there is a notice in the "Star of Alaska's" logbook, and where it states "that her position at noon was 15 miles off Chirikof, and that her time from San Francisco to this point, was 17 days, 19 hours and 17 minutes." This just goes to show, that as far as Captain Mortensen was concerned, he was very much in earnest, as he gave it down even to the minutes. On the other hand, Captain Wiese of the "Star of England" is not mentioning anything in his logbook about what time his vessel passed Chirikof, except for stating, that on May 6, the "England" came to an anchor in Lazy Bay inside Cape Alitak, 33 days out. The "Alaska" came to an anchor in Anchorage Bay on April 21, and only 18 days and 10 hours out, so it looks very much so the Chignik ship was the winner. However, in the fall of this same year, the "Alaska" took 14 days to make the passage to San Francisco, as the "England" made the same voyage, and from Alitak in only 11 days, but no wagers were put on this homeward bound voyages of the two vessels.

1929, was the last year the "Star of Alaska" made her way north under her own canvas, and when she made it in 18 days. Captain Peterson, former master of the "Star of Chile" had the "A-

laska " this year, and the following year of 1930, when she was the last and only sailing vessel in the Alaska salmon fleet bound north for the fishing grounds, and I think it was a petty when this fine and faitfull square-rigger was hung behind the Association's steamer, the " Arctic" and was towed all the way to Chignik. They had 9 days on the voyage. In the fall of this year, she was again towed all the way home to San Francisco, and it was the last round trip voyage of the " Star of Alaska."

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BALCLUTHA
HISTORY

The following two resources dealing with the Alaska Packers Association are from the Library, National Maritime Museum, San Francisco. They are intended to illustrate the life in a cannery and the Packers salmon fleet, of which the Balclutha was a part.

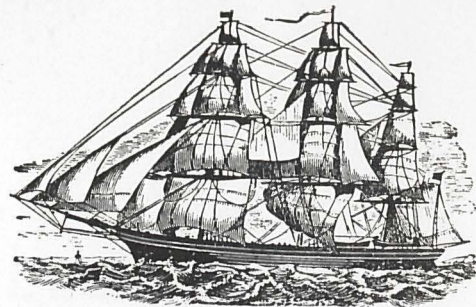
SEA LETTER

Published by the San Francisco Maritime Museum

Foot of Polk Street, San Francisco

DONALD WATSON, President

KARL KORTUM, Director



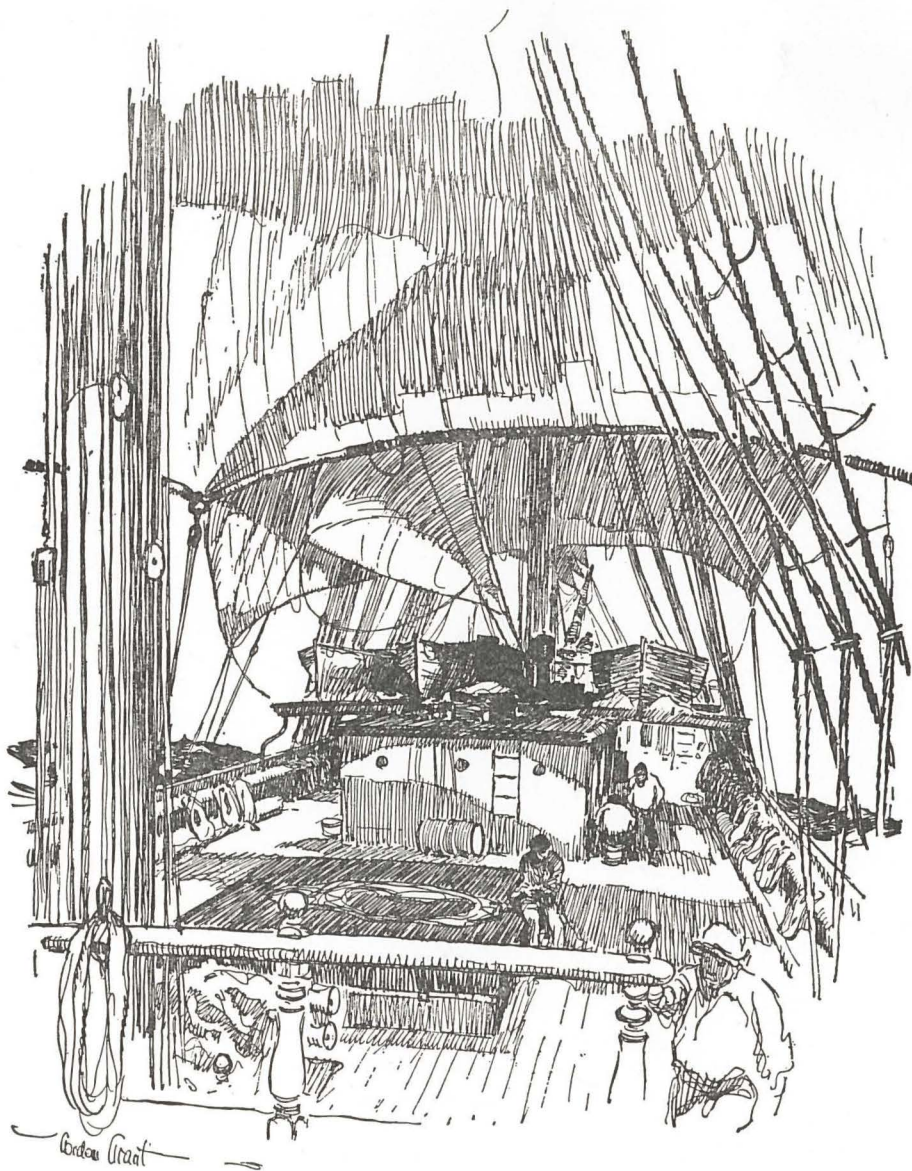
WHEN BALCLUTHA SAILED FOR ALASKA PACKERS . . .

Loaded with lumber and cannery supplies, the Alaska Packers' Ship *Star of Alaska* (*Balclutha*) lies at a San Francisco wharf preparing for her annual voyage to the north. The date is between 1906, when the Packers' first outfitted the vessel under her new name, and 1911, when they lengthened her poop to provide greater accommodations for the gang carried north each spring.

At the right is the San Francisco Bay Scow Schooner *Alma*, a craft which will soon be restored to join the *C. A. Thayer*, *Wapama*, and *Eureka* as part of the Museum's "Project X, now officially the San Francisco Maritime State Historical Monument".

THE GREAT STAR FLEET

By HAROLD D. HUYCKE



THE GREAT

STAR FLEET

By HAROLD D. HUYCKE

(EDITOR'S NOTE: Since sailing yachtsmen of today are the perpetuators of the traditions from the days when sailing vessels plied the seas' trade routes, we are happy to present this nostalgic article on the famous Star Fleet of the Alaska Packers, which is still a live memory to many West Coast yachtsmen. We are especially happy to show these photographs, most of which, Mr. Huycke tells us, are newly discovered and hitherto unpublished. Yachtsmen may be specially interested to note that one photo was taken in 1899 by a young professional photographer who later sailed twice around the world single-handed—fellow name of Harry Pidgeon.)

EVEN IF YOU LIVED in the San Francisco Bay are in September, 1930, the chances are you weren't aware of the arrival of the ship *Star of Alaska* from Alaskan waters, rolling easily through the Golden Gate in tow of a hard-working steamer. That was on the 19th of September, and the *Star of Alaska*, a steel full-rigger 44 years old at the time, brought to an end an era in Pacific Coast maritime history.

Star of Alaska was one of 19 ships whose names began with *Star*, that once called the port of San Francisco "home." There was the *Star of Bengal*, gone these 50 years with the bones of a hundred Chinese entombed in her rusted hull; *Star of Falkland*, which went out of the Golden Gate in the spring of 1928 and never returned; *Star of*

Ships of the Alaska Packers fleet (above) beating up into Unimak Pass, through the Aleutian Islands, and (left) wintering in the Oakland dockyard. The bark being moved is the "Star of Finland"

San Francisco Maritime Museum



The Packers fleet off the mouth of the Nushagak River in Bristol Bay, Bering Sea
San Francisco Maritime Museum



San Francisco Maritime Museum

Chinese cannery hands gambling on the forecastle head of the bark "Harvester," bound from Cook Inlet to San Francisco in 1899. The man by the starboard rail looks like a loser. (Harry Pidgeon, who took this picture, later sailed twice around the world single-handed in the yawl "Islander" between 1921 and 1937)

England, which knew the City by the Golden Gate long before the fire of 1906; *Star of Shetland*, which left the Bay scarcely 20 years ago on a voyage to a scrapyard in Japan. There were many more, each as different from her sisters as human beings are from each other.

These ships belonged to the Alaska Packers Association of San Francisco. In 1893 the Association was formed by merging small Alaskan salmon canneries, which had been suffering and expanding alternately with the fluctuat-

ing demand for canned salmon. The waters of Alaska and the Pacific Northwest teemed with salmon. The relative inaccessibility of the fishing grounds called for ships that could sail across more than 2,000 miles of open, oft-times stormy seas, and bring a season's pack of salmon home in the fall. Supplies and workmen could be taken to the cannery and fishing sites by sea only. The need for ships of large carrying capacity was thus obvious.

There was at that time a well-established shipbuilding industry on the

Pacific Coast to meet the growing shipping demands of the lumbering and logging interests. These yards built sailing vessels suited to the coastwise and limited offshore lumber trades, but except for a few Pacific Coast-built schooners and barkentines, the new Association found the larger square-riggers from the New England shipyards more suitable.

The first few years they chartered an assortment of ships owned mostly in San Francisco. Salmon fishing in Alaska was a seasonal occupation, starting in late spring and running toward the end of August, and by chartering the Packers avoided the expense of maintaining a fleet during the winter. But they ran into the problem of the limited facilities of the chartered ships. Salmon packers were not exactly considered to be in the deep-sea trade, but rather more like "floating warehouses." Their actual time at sea rarely exceeded three months a year. Within seven years of organization, outright ownership of vessels became established policy and thereafter only extra-large catches forced the Association into the charter market for additional bottoms.

By the turn of the century came the problem of replacements. The large square-riggers the Packers owned were not new, and they were of wooden construction. American shipyards, generally speaking, hadn't turned to steel ships as had the European builders. Then, as now, American law prohibited the use of foreign-built ships in coastwise trade, except for repaired wrecks and ships admitted to United States Registry by Special Act of Congress.

In 1898 the Hawaiian Islands were annexed by a joint resolution of Congress but this did not immediately change the status of ships owned by

Hawaiian citizens or ships registered in Hawaii but owned by Americans. However, within two years another Act of Congress provided that all ships that carried Hawaiian registry between June 14 and August 12, 1900, would be entitled to the full rights of American coastwise trade. Several British-built ships were immediately affected, and in the two months' leeway several additional ships were registered in Hawaii.

Thus a good-sized fleet of iron and steel ships became eligible for the Alaska Packers trade. The small ship *Euterpe* was the first of 19 iron and steel square-riggers to fly their swallow-tail houseflag. After the turn of the century, the Association bought only iron and steel ships, though there were a half-dozen wooden ships in the fleet for nearly a quarter of a century more. The Downeasters *Indiana*, *Bohemia*, *Santa Clara* and *L. J. Morse*, veterans of the Cape Horn trade, season after season sailed up to Kvichak, Nushagak, Naknek, Chignik and other canneries in Alaska.

The Association maintained its own dockyard in the Oakland Estuary and here, in winter, the whole fleet would be laid up and repairs and alterations effected. Men who later became masters of American ships, both sail and steam, found employment as riggers and sailors in maintenance crews in their youth in the yard at Paru Street in Alameda. If the jobs on offshore

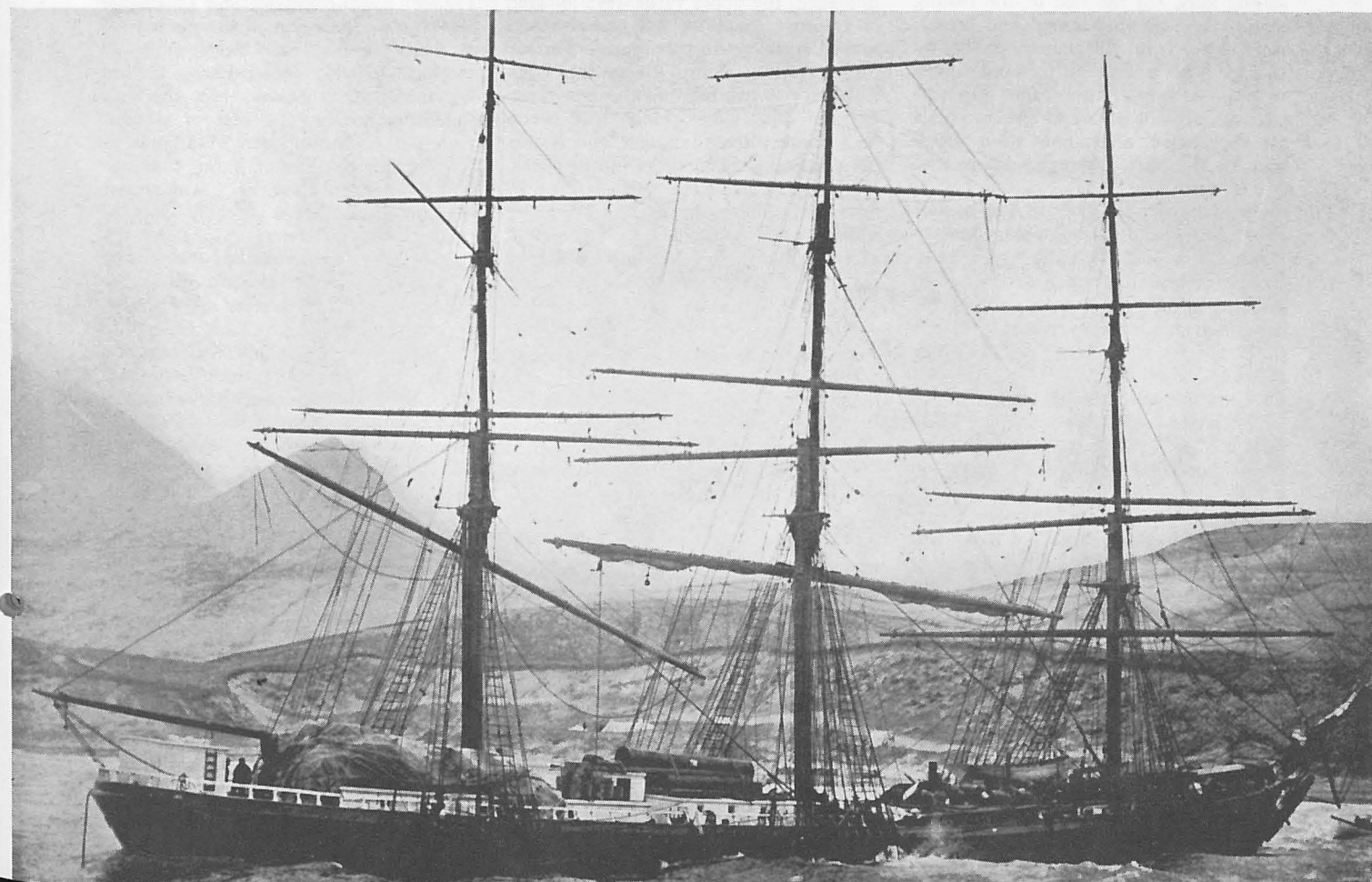


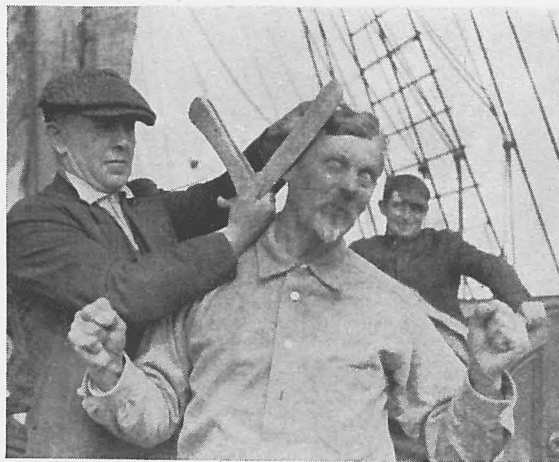
Widerstrom Photo

Tallying fish from the salmon boats into a cannery scow at Kvichak Bay in 1921 (above)

The Packers' ship "Paramita" (below) ashore on Fox Island, Alaska, in May, 1914

San Francisco Maritime Museum





What the *Equator* was to deepwater sailors, *Unimak Pass* was to Alaska-bound fishermen—where green-horns were initiated with horseplay. A new hand gets his "Unimak shave" aboard the "*Star of France*" in 1919

vessels were scarce, a sailor on the beach might be hired by the Alaska Packers to keep the fleet in condition. With the end of winter in sight, a couple of the ships would be sent to the Puget Sound area for cargoes of coal and box shooks, which would be brought to San Francisco and distributed throughout the fleet for transportation to the canneries in southern Alaska or Bristol Bay.

From San Francisco to Alaska was approximately 2,500 miles, not far as sea voyages go. Each ship was loaded with supplies, manned by fishermen who served as sailors, and crowded with cannery workers. The whole summer's operation was sustained by the supplies and manpower carried in the sailing fleet. At the end of the fishing season the salmon, canned and boxed, were loaded in the homeward-bound ships. The operation covered seven months at most. Since each ship carried upwards of 100 men and supplies for the season, alterations were necessary in the ship's living quarters and storage spaces.

On ships like the *Star of Alaska*, *Star of Holland*, *Star of France*, *Star of Iceland* and *Star of Russia*, poop decks were lengthened as much as 75 feet to provide additional living quarters for fishermen and cannery hands. Tween-decks spaces were given over to living quarters, large water tanks and several kitchens or galleys. The Chinese were well represented in the canneries, while Italian and Scandinavian fishermen from San Francisco Bay made up the fishing crews.

Fishing methods in Southern Alaska differed from those in Bristol Bay. The water in southern Alaska was too clear for gillnetting, so traps were used. Trap fishing required smaller crews for the ships that went to the Chignik, Karluk and Alitak. In the early days of the century, fishermen signed on the windjammers as sailors, being paid on a quarterly basis; one quarter for the run to Alaska, one quarter for unloading

the cannery supplies; one quarter for loading the salmon pack and the last quarter for sailing the ship back to San Francisco. The Bristol Bay ships generally had larger crews than those going to southern canneries, but even so, good sailormen who knew square-riggers were often scarce.

Crews were split into gangs of from 12 to 18. Prior to World War I, gangs numbered 18 men. Two were assigned to keeping quarters on the ship clean, one man to repair and keep nets in order, and the balance of the gang to do the ship's work under way. Upon arrival of the ship at its cannery both anchors were let go and a swivel shackled into the chains so the ship could swing freely. As the stores were unloaded, the upper yards were lowered to improve stability. All hands then turned to in getting the cannery ready for operation, doing everything from carpentry to overhauling the boats and barges. The Chief Mate was beach boss, more often than not, and it was he who had to make order out of chaos. With the growing strength of the fisherman's union, delineations were made in the work performed by fishermen, and eventually the carpentry and miscellaneous chores were lessened.

The ships were as varied and colorful a lot as were ever owned by one company. The Alaska Packers were shipowners from 1893 until World War II caused the government to requisition the few steamers they still owned, and over this period they owned and operated ships of all sizes and rigs.

During the first few years casualties were rather heavy. The ship *Raphael* was wrecked near Karluk in July 1895, and the following year the ship *James A. Borland* was lost on Gugidak Island. Navigation in fog-shrouded and unmarked channels was hazardous at best, and it is a wonder that more ships weren't lost in those early years. In 1898 the big wooden full-rigger *Sterling* went aground on an un-named and unmarked shoal in the Bering Sea, so

far from any assistance that she had to be given up. Today's charts of those waters show "Sterling Shoals."

In 1900 the wooden ship *Merom* was wrecked on the beach at Karluk. The following year, the wooden full-rigger *Santa Clara* was wrecked at Trial Island near Puget Sound, while going after a cargo of coal, but survived to remain in service for 25 years more.

In addition to their own fleet, the Association chartered 57 ships over a period of 18 years, but by 1911 the need for chartering had diminished. At the turn of the century they owned 13 wooden ships. In 1901 the small iron bark *Euterpe* was purchased followed by the iron bark *Coalinga*, and in the following year by the iron bark *Himalaya*. All three, registering a little over 1,000 tons each, were British-built and had been in the emigrant and colonial trades for over 30 years. Had it not been for their sound construction and relatively heavy iron plates the ships would have been obsolete.

During the next four years the Association bought six more ships and barks from San Francisco owners, and by the end of 1906 had nine iron and steel ships.

Among this group was a quartet of iron Belfast-built ships, which had already acquired some fame as fast windjammers while under the Red Duster of England. A little of their former glory rubbed off on their less glamorous sisters when the names of the other five were changed to conform to the rakish four Irish ships. Thus the *Star of France*, *Star of Russia*, *Star of Bengal* and *Star of Italy* formed the nucleus of an American-flag "Star" fleet.

With 15 years of seafaring behind her under British ownership, the ship *Balclutha* became the *Star of Alaska*. *Euterpe*, beginning her 35th year at sea, became the *Star of India*; *Coalinga* with a colorful past as a competitor of the clipper ships became *Star of Chile*; *Abby Palmer*, originally the British bark *Blairmore*, became *Star of England*; and the *Himalaya*, of the same vintage and history as *Euterpe*, became *Star of Peru*.

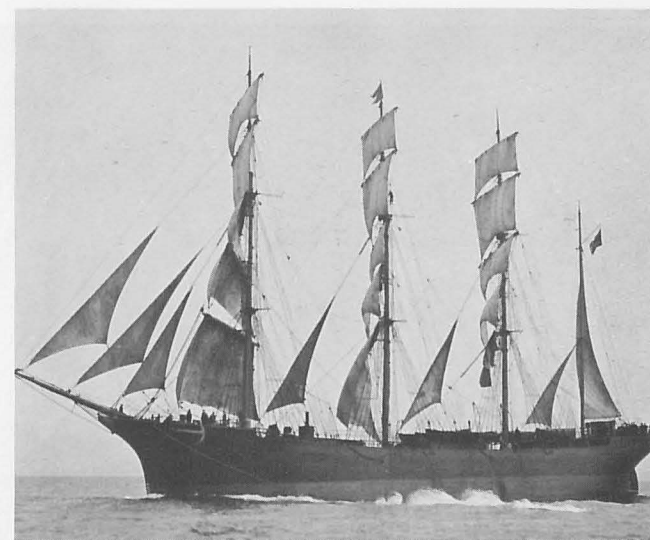
Old deepwater sailors will tell you today that they "lost track" of these ships once they went into the salmon fisheries. But the ships themselves continued to make their own histories. *Star of Bengal* served only two seasons in the Alaskan trade and came to an agonizing end Sept. 20, 1908, when she was being towed from her cannery station at Fort Wrangell in southeastern Alaska at the start of her voyage home. Heavy weather drove her ashore, despite the efforts of two tugs, and 110 people were lost, most of them Chinese. Those that survived did so under the most trying and tragic conditions. This was by far the worst disaster the Association suffered.

Even in this routine calling, where ships spent nearly nine months a year at anchor or in a berth, navigating skill and weather ken were vital. Ice was not unknown, and fog, unlit channels and strong currents taxed the masters and mates to a high degree.

Captain Nicholas Wagner, who was master of the *Balclutha* in 1906 and the *Star of Bengal* in 1907 and 1908, refused to substantiate the claims of Captain Bill Mortensen, who began his career with the Association before the turn of the century, that the *Star of Alaska* was the fastest ship in the fleet. Even when both men had retired to Sailors' Snug Harbor in their declining years, they most decidedly failed to agree on this point. Captain Wagner died in 1943 at a ripe old age, Captain Mortensen lived for another five years.

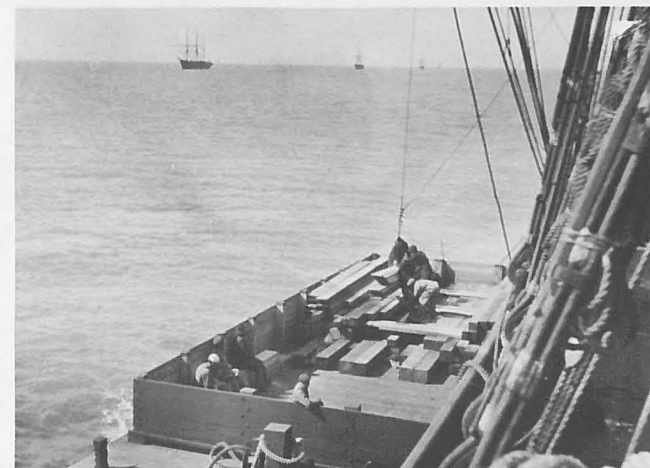


Fishermen's quarters in the 'tween deck of the "*Star of Holland*." The Italian and Scandinavian fishermen acted as sailors on the square riggers during the voyages to and from Alaska. The quarters for the Oriental cannery hands, known as "Chinatown," were located at the other end of the ship



The "*Star of Greenland*"

San Francisco Maritime Museum Assoc. Photo



Lumber, pilings, coal, tin plate, and box shooks were principal north-bound cargoes carried to Alaska in the "Star" ships. Here the "*Star of Holland*" discharges lumber for Diamond M Cannery, Naknek

Loading rice aboard a salmon packet. The Chinese labor contractor supplied his own stores. This photograph was made on the San Francisco waterfront April 12, 1906, just sixteen days before the disastrous earthquake and fire struck the city

Photo from John W. Procter Collection, San Francisco Maritime Museum



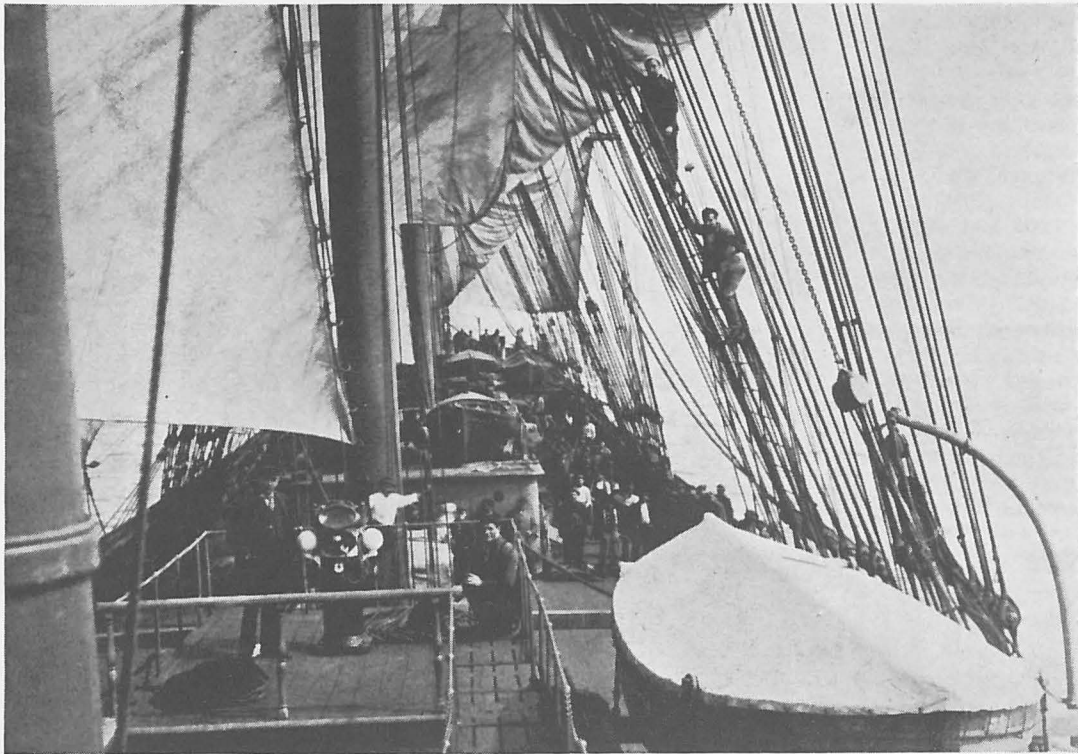


Photo from Capt. Wm. Dianus

Aboard the "Star of Poland" in 1916, in a light fair wind. Capt. Rasmussen (left) and his mate (squatting) in the foreground

THE GREAT STAR FLEET

Part II: Fate Writes the Final Chapter in the History of These Famous Vessels

By HAROLD D. HUYCKE

(Last month's instalment described the formation and early development of the Alaska Packers Association's famous "Star" fleet of square-rigged cannery tenders.)

IN 1908 the bark *Willscott* was bought and renamed *Star of Iceland*. She remained in the company's service until 1925. She was another British-built bark, dating from 1896, a dead-weight carrier with no speed records. When only a year old, she had been dismantled off the Japanese coast and sailed under jury rig 4,000 miles in 61 days. She was then sold to San Francisco owners and put in general cargo trades, mostly from Hawaii to the Atlantic Coast via Cape Horn with sugar and back with coal or other cargoes. In 1929 she put to sea for the last time, bound to Japanese scrappers.

In 1909 the bark *Homeward Bound* was bought and renamed *Star of Holland*. She had a few unique twists to

her history, too. She had been built as the ship *Zemindar* in 1885 in Belfast, Ireland, by Harland and Wolff for the Indian trade, and had spent nearly 15 years in that service for the Brocklebanks of Liverpool. Then she spent a short time under the German flag as the *Otto Gildemeister* of Bremen, but was dismantled in 1901 on a voyage from Yokohama to Portland, Ore. She came under the American flag when enough money was spent on her refitting to qualify her for United States Registry, and for the next eight years sailed in the Cape Horn trade between California, Oregon, and Europe.

Captain Chadwick Thompson had some shares in her, and tried out his own rig on her, which proved pretty successful. Captain Thompson rigged her as a sort of bark, but kept a single squaresail on the mizzenmast, followed by an immense ringtail which was typically Pacific Coast stuff. Sold to the Alaska Packers in 1909, she was re-

named *Star of Holland* and converted to a conventional bark. After being sold a couple of times as a barge, she was broken up for scrap in 1950.

From 1909 to 1912, the Alaska Packers bought the bark *Kaiulani*, which was renamed *Star of Finland*, and the big four-mast barks *Acme*, *Astral* and *Atlas*, renamed *Star of Poland*, *Star of Zealand* and *Star of Lapland*. The Standard Oil Co. of New York, owner of the last-named trio, had commissioned the famous shipbuilding family of Sewall of Bath, Maine, to build three 3,000-tonners for their case-oil trade to the Far East, with an eye to picking up cargoes homeward in the Hawaiian sugar trade, or general and lumber trades from the Pacific Northwest to the Atlantic. They were profitably employed for a little over ten years, but by 1910 the Standard Oil Co. found cargoes hard to obtain in the face of steamship competition. The Alaska Packers bought them as they

came on the market, the last being the *Acme* after she completed a westbound passage to Puget Sound in 1913, one of the last such voyages of an American flag ship.

Even the Sewalls of Bath began to dispose of some of their ships. They had built ten steel-hulled sailing ships and for a number of years had operated the British-built four-mast bark *Kenilworth*. They let the latter go in 1908. She became the *Star of Scotland*, a name familiar for many years along the California Coast.

As the competitive deep-water trades in which sailing ships had once been profitably engaged were captured by steamers, the market for sailing vessels was poor. But for the salmon packers, these ships might never have survived the brief period of discard that preceded World War I.

That war found the Association with 16 iron and steel windjammers and

The "Star of Alaska" close-hauled at sea (right)

San Francisco Maritime Museum

The "Abner Coblurn" was forced aground at Menshikoff Point by ice in 1918. The crew "picnicked" ashore



about eight wooden vessels. With the shortage of shipping throughout the world, the Association was in a happy position. Shipping people of the Coast were anxious to charter sailing ships for general cargo voyages in the Pacific in the off-season when they would otherwise have been laid up in Alameda.

The *Star of Holland* made a couple of voyages with lumber to Australia and Manila, and later returned to Alaska. The *Star of Poland*, formerly *Acme*, was a better offer on charter than her smaller contemporaries, and was chartered in the fall of 1916 for Australia, Chile and Manila. Homeward bound from the Philippines in the fall of 1918, she was wrecked on the Japanese coast.

Star of Finland returned to old familiar routes when the APA chartered her for a round trip to Hawaii, returning with sugar in 1917. The voyage was not without bad weather and trouble, but she weathered the gales and returned to Alaska in the spring. She continued thus for another decade, being laid up in 1927.

With the entry of the United States into the War, the government seized

a number of German ships in United States ports in 1914 and turned them over to the Shipping Board to operate. For three years after the war a boom in world-wide shipping continued, but in 1921 the bottom fell out of freight rates and laid up many sailing vessels and steamers. The former German ship *Steinbek*, which had been seized in 1917 in Eagle Harbor, Wash., and put into operation as *Northern Light*, came into New York in the spring of 1921. In the spring of 1922 the Packers bought her, with money they received from the Government over the loss of the *Star of Poland* in 1918, and brought her to San Francisco with a load of coal. She was renamed *Star of Falkland* and put into the Alaska business.

Down in New Orleans one of the most famous sailing ships ever to carry the flag to sea was laid up for lack of cargoes. The *Edward Sewall*, a product of the Sewall yard, now owned by the Texas Co., had lain for over a year in the Mississippi River. Captain Halvorson and a Mr. Iversen of the Alaska Packers looked her over and decided she was a good buy. In February, 1922,

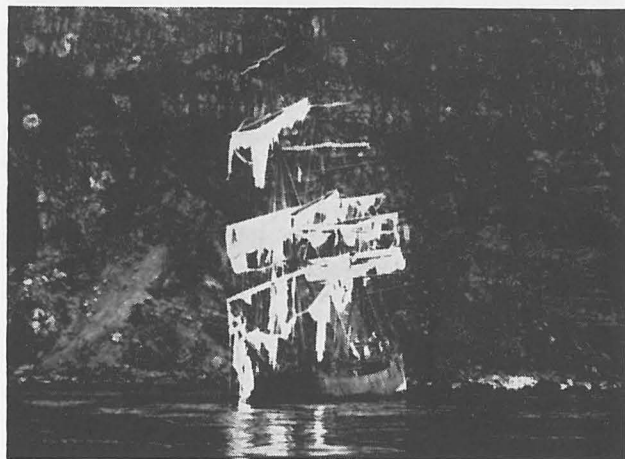
she left the *Crescent City* in tow in March, the tug *Barranca* taking her as far as Colon. She had a general cargo, likely the last one carried intercoastally by a sailing ship. Early in May she arrived in San Francisco. She was renamed *Star of Shetland*, and she and the *Star of Falkland*, were the last sailing vessels purchased by the APA.

Throughout the summer and fall of 1922 she lay in the Moore shipyard in Oakland being overhauled. Though the Association doubtless felt it could profitably operate sailing ships indefinitely, 1922 was not a year for brash and optimistic speculating. Shipowners in San Francisco were beginning to cast long looks at their inventories, consisting largely of wooden vessels. Robert Dollar had bought a fleet of large steel square-riggers which had lain idle for six years in Santa Rosalia, Mexico, a small mining port in the Gulf of California, and when they were towed to San Francisco they weren't the best looking of ships. Hind Rolph and Co. owned a few square-riggers, but were bringing them home in 1921 for an indefinite lay-up. None of these ships went to sea again.

It seemed to be a poor time to plan continued operation of large sailing vessels, but the Alaska Packers were not primarily in the shipping business. In the early 1920s the Association began laying up the older wooden ships, followed by the smaller and older iron and steel ships. As buyers were found, most of them disappeared on one-way voyages to obscure corners of the Pacific Ocean, or were sold to the movie moguls of Hollywood who needed authentic-looking props which would burn, sink or explode on command. Steamers replaced the ships whose tall masts had towered above the sheds in Alameda, and 1930 a depression added to the pessimism of the shipping world.

We're back again to the *Star of Alaska*, as she leaves the slip in Alameda, the solitary ship chosen from a dwindling fleet of finely-kept but out-of-date vessels to go north for the annual salmon fishing. But she goes in tow of the company steamer *Arctic* and keeps her sails furled. On Sept. 16 she appeared off the Golden Gate, rolling in the swell, a long towline leading ahead to the steamer *Kvichak*. She had not made her own way at all this year, and when her cargo was out she was tied up with her sisters and offered for sale.

That was nearly 30 years ago. Where did that great fleet of ships go?



The "Star of Falkland" ended her days on an iron-bound coast in 1928 (left)

Star of Alaska herself is still in the neighborhood, but she has had her appearance changed considerably. *Star of Chile* was sold in 1926 and became a barge named *Roche Harbor Lime Transport*, making a couple of coast-wise voyages under tow, full of lime-rock, before being laid up in Puget Sound. During the Second World War she was rigged as a four-masted schooner, but she sat on a rock in British Columbia waters and returned to Lake Washington with a lump of cement in her bottom to keep the water out. After eleven years of idleness she

was sold, repaired and used as a barge in Canadian waters.

Star of India, that solid old ship with her heavy Swedish iron plates, was sold in 1926 too, and went to San Diego to become a floating Maritime Museum. She is there today, tied up near downtown San Diego. Her rig has been severely cut down and she needs paint, but there's no mistaking this 95-year-old vessel.

Star of Peru hoisted the tricolor of France in 1926, took a cargo of lumber from Vancouver, B.C., to the South Pacific Islands and was converted to a hulk there.

Star of Italy was cut down in 1927 to be towed away to Buenaventura, Colombia, for use as a barge. This ship that had such a beautiful rake to her masts and sat so gracefully in the water, was one of the last survivors of the fleet, but she became a hulk in some obscure alien port.

Star of Russia was sold and took a load of lumber from Tacoma to Samoa before being hulked in New Caledonia. She was renamed *La Perouse* for that last voyage. For the next three decades she lay not far from her old sister of Alaska days, *Star of Peru*.

Star of France fell into the hands of some people from Southern California who saw in her only the potentialities of a fishing barge. She was sold in

1934, converted to a barge in Alameda, towed to Redondo Beach and anchored a mile or two off-shore. For the next seven years she suffered the torments of neglect, while rubber-legged landlubbers splattered mackerel slime, soda-pop and candy wrappers over her decks. Here was a ship which had raced home from India in the 1870s with jute for the British Isles; a relic of the splendid Victorian era when all the grace of wooden clippers had gone into hulls of iron and lost little in the transition. In 1940 she was shifted to the more lucrative fishing grounds off the San Pedro Breakwater. Then one day in September, 1940, a Jap steamer cut her down in a thick fog and sent her to the bottom.

Star of Greenland, which had showed her skysail yards to dockside watchers along the Melbourne 'front in her youth, was sold to Swedish owners in 1929. They renamed her *Abraham Rydberg* and kept her busy with cargoes of grain, sailing around the world, training boys for the sea. World War Two found her in the North Atlantic, near the Faeroes, and she was ordered to the United States. For a year or two she was a visitor to the Atlantic ports and somehow managed to escape the U-boats, but she was eventually sold to Portuguese buyers who converted her to a motorship. She struggled on as the *Foz Do Douro*, finally going the way of all outdated machinery, into a scrap pile, only a couple of years ago.

Star of England was sold in 1932. Her new owners dreamed up a pay-as-you-go, round-the-world cruise, but the money was short and the plans went up in smoke. *Star of England* was again sold, and went to Canada for use as a barge, in which capacity she is still afloat today.



The "Star of Alaska," restored to her original name of "Balclutha," recently being towed to her permanent berth at the San Francisco Maritime Museum

Star of Shetland, *Star of Lapland* and *Star of Zealand* were all laid up in the late 1920s, but weren't sold until 1934. These latter day big carriers were still good, and the Association put more good money into their upkeep even after the *Star of Alaska* came home for the last time in 1930. But it became hard to find men who would go out in the sailing ships.

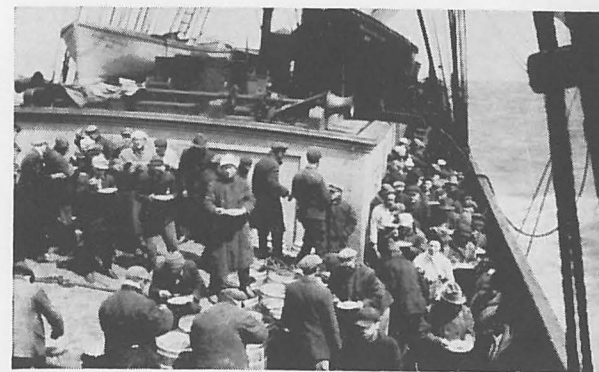
One by one, the three big Sewall-built four-masted barks were towed away, loaded with salt and scrap steel cargoes, on one-way passages across the Pacific to Japan where they were scrapped. The *Star of Shetland*, hard old battler of the sea, was the last to go in September 1936.

Then only the *Star of Finland* remained. It was hoped that she would be kept as a relic of the days of sail. The Alaska Packers Association was proud of its past, and much attention and nostalgia were lavished on these ships, so it seemed altogether proper to try to keep the *Star of Finland*. But in 1939 she was sold for a good price and only the steamers were left in the Alameda yard.

The darkening horizon of World War II proved to be a form of salvation for this last survivor, and in 1941 she was chartered to load lumber for South

Chow time for the "Star of France's" Italian fishermen in 1918. She had three galleys—American, Chinese, and Italian styles

Axel Widerstrom



Africa. She sailed in September from Grays Harbor, reaching Durban in 126 days, and thence plodded on down to Hobart, Tasmania. Troubles plagued the old bark and she was sold to the United States Army, towed to Sydney and slashed down to a hulk. She survived the war in the Southwest Pacific and was finally taken to the Philippine Islands and shoved upon a beach, where she remains.

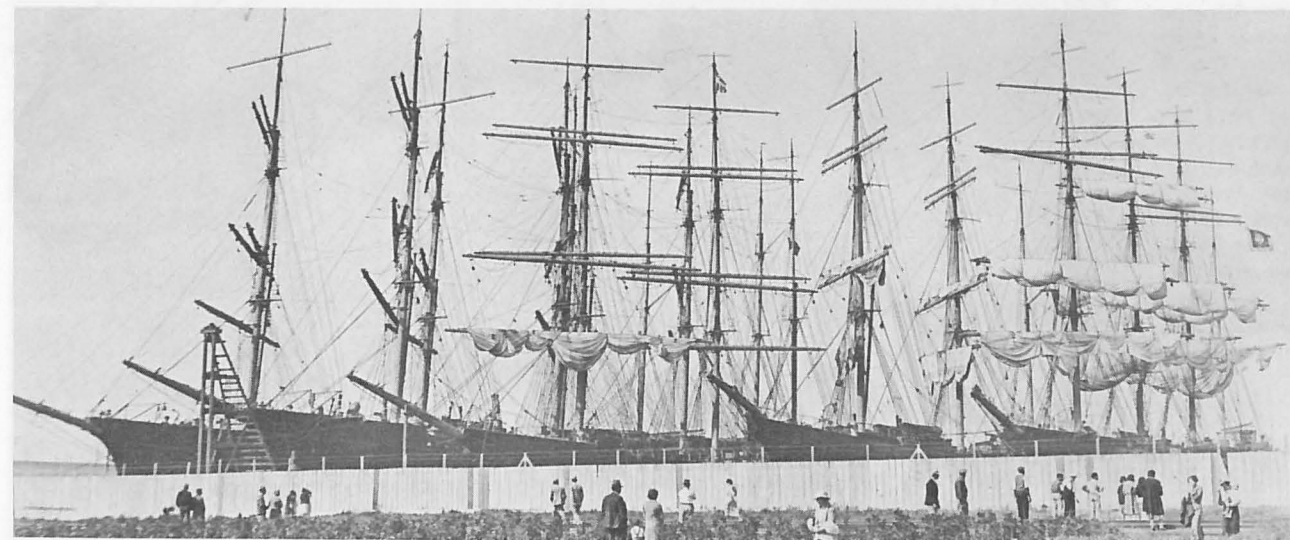
Where once the port-painted hulls of Limejuicers could be seen in San Francisco Bay's anchorages, only one remains. The *Balclutha* has completed a cycle of history, in a sense, because

she presently lies moored to a San Francisco waterfront wharf, not too far from the spot where she rode at anchor as a new ship back in 1887. She is port-painted today as she was then, but the men who built her, and her old owners, are history. Those who sailed her in her British days can hardly be found in the British Isles, and even around San Francisco one has to look a little harder for the generation of seamen who remember her as the *Star of Alaska*. It is fitting that the *Balclutha* has found her last mooring in San Francisco, which has been her home for more than half a century.



In the early 1920s the pantheon of square riggers at the foot of Paru Street was still intact

Photo from Capt. Carl Johannesen



By the early 1930s only five were left. In 1934, when this picture was taken, it had been five years since any of the "Stars" had voyaged north under sail. The three large four masted barks in this picture were sold to Japan for scrap before the year was out

Photo from John W. Procter Collection, San Francisco Maritime Museum

Bristol Bay fishermen and their "Columbia River gillnetters" Law required use of these two man sprit-rigged "Columbia River gillnetters" until 1950, when power boats were finally allowed in Bristol Bay fishing. The gillnet boats for Alaska were made in San Francisco and transported North by sailing ship

Photo from Capt. Carl Johannesen



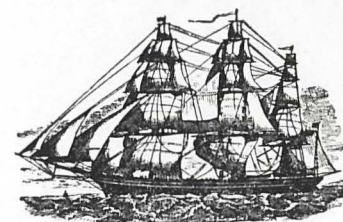
"Star of India" nears her centennial at San Diego. The success of "Balclutha" at San Francisco has sparked new interest by San Diego in the only other intact survivor of the "Star" fleet. The 96 year old hull was dry-docked in 1959 and rerigging is now scheduled. Garboard strakes of 15/16" iron and topside plating 11/16" thick account for her longevity

Photo from Karl Kortum



ALASKA PACKERS ASSOCIATION NUMBER

SEA LETTER



ROGER OLMSTED
BASIL KNAUTH *Editors*

... ABOUT THE AUTHOR



CAPT. A. F. RAYNAUD, KARL KORTUM and the author prepare the "C. A. Thayer" for sea and her final restoration in San Francisco.

Harold Huycke first saw the Pacific Ocean as a boy of 8 when his family moved from Oklahoma in 1930. Entranced by the sea he determined to become a commercial fisherman. With the outbreak of war he entered the California Maritime Academy, graduating in 1944 with his 3rd mates license. As an officer and Ensign in the Naval Reserve he sailed throughout the war in Liberty ships, Victory ships, tankers and even the old wooden steam schooner *Stanwood*. After completing his education at the University of Southern California he spent 4 years at sea, advancing his license to master, before experiencing the shore end of ship management with positions at Weyerhaeuser and States Marine steamship companies.

Harold's wide ranging interest in Maritime History found focus in the long-neglected story of west coast shipping and the great square-rigged Alaska Packers fleet in particular.

Adding further to his "feel" for the great days of sail he spent almost a year in conjunction with the Maritime Museum in restoring the 3-masted schooner *C. A. Thayer* for the State of California, which project will soon be completed by her presentation to the public as part of the San Francisco Maritime State Historical Monument.

Mr. Huycke's continued research and writing is being devoted to a history of 12 German sailing vessels which spent their last days on the Pacific Coast. Harold's biographies of a number of the STAR ships have been published by the AMERICAN NEPTUNE at Salam, Mass.

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A membership application has been incorporated in this issue of the SEA LETTER. If you are not a member, or if your membership has expired, we hope you will mail this application to the Maritime Museum. We urge those who are members to support their Museum Association by passing the application along to a friend.

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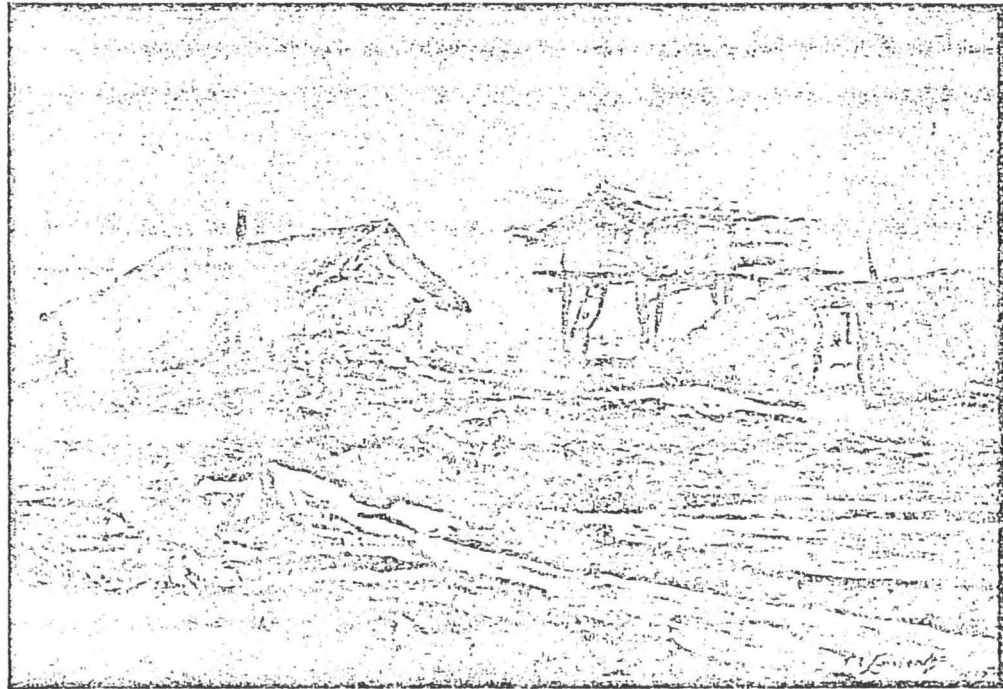
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"Spring Breakup On The Tundra," an oil painted c. 1937 by Ted Lavett.

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In from the sea and being towed the last miles to the cannery, the big bark Star of Greenland served the Loring and Wrangell canneries of the Alaska Packers Association for many seasons. See story on page 168.

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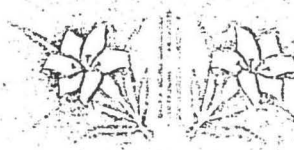


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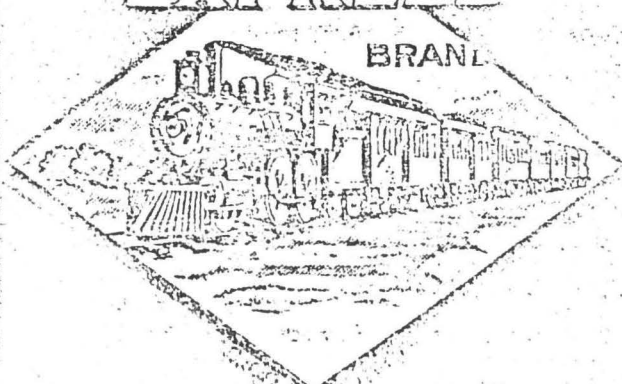


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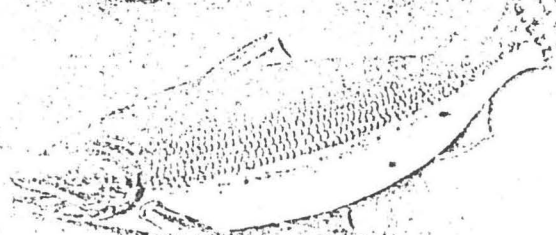


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**CHUM
SALMON**

By PATRICIA ROPPEL

LORING

In Naha Bay, which indents the mountainous shoreline of Revillagigedo Island in Southeastern Alaska, once stood the thriving salmon cannery village of Loring. Each year during the summer months the village bustled with activity. In April or May large square-rigged sailing ships arrived from San Francisco with supplies and cannery crews and fishermen. Soon a flotilla of fishing boats sailed out of the bay in search of the salmon. When they found them and sent the freshly caught fish back to the cannery, the work of processing the salmon began and the bay resounded with the sounds of boat engines, the shouts of working men, and the clatter of machinery. Then, when there were no more salmon to be caught that season, or when all of the cans were filled, the ships and men left Loring, taking with them the salmon pack which numbered into the thousands of cases.

Each year more and more cases of salmon were packed there until the Loring cannery in some years packed more salmon than any cannery in Alaska.

But the first salmon-processing plant on Naha Bay was on a much smaller scale. In fact, it was not a cannery but a saltery where the salmon were split and partly boned by hand, heavily salted, and packed into barrels for shipment.

Very little is known about the beginnings of the salmon-saltery business in Naha Bay but it is believed that it happened in 1883 when the Alaska Salmon Packing and Fur Company built a plant

there. The company was incorporated in San Francisco that year.¹ But the area must have been surveyed before that: Someone had to tell the San Francisco capitalists about the Naha River and its teeming salmon. And someone must have foreseen that there was money to be made in salting salmon there, in what was at that time considered a vast wilderness, and shipping them to market.

In 1883 the salting of salmon was still a relatively new proposition in this part of Alaska. The Russians had salted some salmon at The Redoubt, near Sitka, during their occupation of the country. Soon after the United States purchased the country, Charles Vincent Baronovich began salting salmon at Karta Bay on Prince of Wales Island, but he had practically ceased operations by 1883. And on the other side of the island at Klawock, George Hamilton had established a fishery and probably a saltery even before the first cannery was built there in 1878. By 1883 there were perhaps a few other salteries whose identities have been lost, and there were two salmon canneries in Southeastern Alaska: North Pacific Trading and Packing Company at Klawock, and the Cape Fox Packing Company at Boca de Quadra on the mainland.²

So, it was pretty much a pioneering group of men who chose to invest in a fishing establishment in Alaska. And little is known about either them or their company. A stock certificate of the Alaska Salmon Packing and Fur Company gives the date of incorporation as April 20, 1883, and states that the authorized capitalization was \$1,000,000, consisting of 50,000 shares with a par value of \$20 each. On the certificate is penciled "30,000 shares," which may indicate the number actually sold, or may have

some other significance.³ The certificate was signed by James J. Green as president and David Wilder as secretary. The "location of the works" was listed as Naha Lake, Alaska.⁴

During its first season the Alaska Salmon Packing and Fur Company put up 338 barrels of salmon and in 1884 the pack was more than 500 barrels.⁵

One of the surviving accounts of the early operation at Naha Bay is given by Eliza Ruhamah Scidmore, who visited the bay in 1883 aboard the steamer *Idaho*. She said, "During the run of salmon, the pool at the foot of the falls is crowded with the struggling fish, but the net is cast in the lake as often as in the bay. . . .⁶ The salmon are cleaned, salted and barrelled in a long warehouse overhanging the falls. . . ."⁷

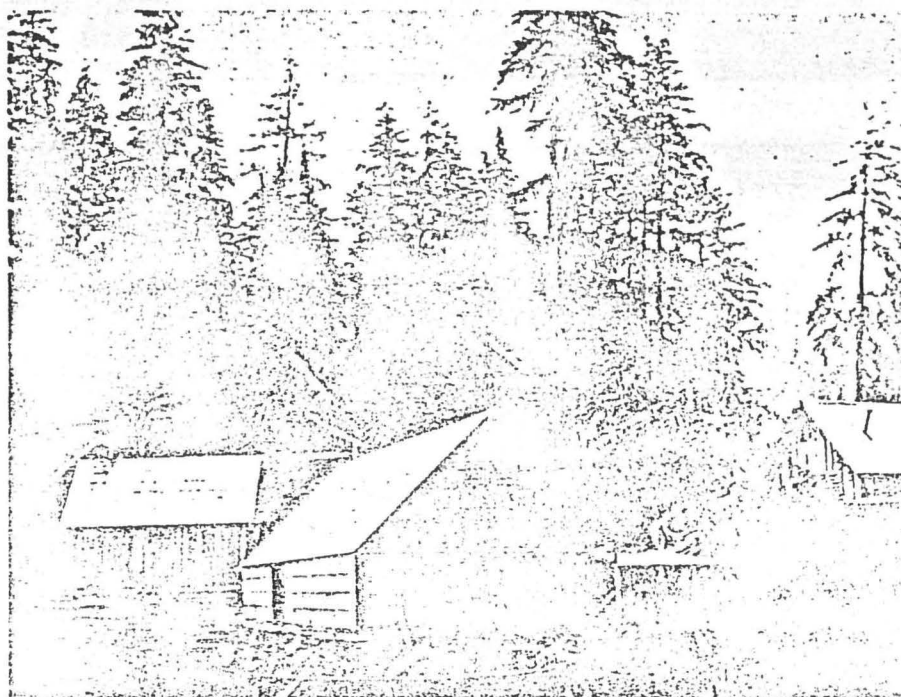
Another writer, who visited it several years later, has this to say about the fishing and packing establishment: "The salmon cost about one cent apiece, averaging eight pounds each. There are a number of Indian men and women at work washing and preparing them for salting, which is done rapidly. . . . The men receive one dollar and fifty cents per day and the women one dollar."⁸

Unfortunately, neither of these accounts mentions the people by name. The first man we know to have been actively connected with the Naha operations was Max Pracht, who was superintendent there from 1885 until 1887. He went on to a colorful and controversial career as Alaska's Collector of Customs and as Special Treasury Agent for the Protection of Alaska's Salmon Fisheries.

Pracht was born in the Palatinate section of Germany in 1846 and 2

Opposite—These Alaska Packers Association can labels were provided by Ed N. Opheim Sr., of Ouzinkie, near Kodiak.

The saltery which preceded the cannery on Naha Bay, August 1887.



PROVINCIAL ARCHIVES, VICTORIA, B.C.

years later his father fled as a result of the revolution of 1848 and brought his family to America. In his youth Pracht worked on steamers on the Mississippi River and the Red River and as a cabinetmaker. In 1878 he moved to San Francisco where he purchased an interest in the firm of Neville and Company, a manufacturer of nets, burlap bags, tents and awnings. Pracht was sent to Portland, Oregon, to represent the firm.⁹

Sometime in the early 1880's Pracht invested in Alaskan salmon saltery and was perhaps one of the buyers of that initial issue of stock by the Alaska Salmon Packing and Fur Company. An account by Pracht's son, William, states that because of mismanagement the company was in financial trouble, so in 1885 Pracht sold his interest in Neville and Company and moved to Alaska to take charge of the fishery at Naha Bay, as the saltery site was then known.¹⁰ It is a Tlingit Indian name, derived from *Na-a* meaning "the country of the distant lakes" which undoubtedly refers to a chain of lakes emptying into the bay.¹¹

Pracht changed the name to Loring.¹² Just whom he was honoring is not known, as the name Loring has not come to light in connection with the Alaska Salmon Packing and Fur Company. The name Loring became established on September 20, 1885, when a post office was opened there with Emilio N. Terello as postmaster.¹³ Terello, who was assistant superintendent and storekeeper, held the post until 1887 when he moved to San Francisco to work as a druggist.¹⁴ Max Pracht then became postmaster.

For a number of years Loring was the most southerly post office in Alaska, the first one at which steamers called when arriving from Portland or the Puget Sound area,

and mail was distributed from Loring to other settlements, canneries and mission stations over a wide area.

Pracht served as superintendent at the Loring saltery for 2 years. Then in May 1887, *The Alaskan* at Sitka reported that he had "sold his salmon packing establishment to a joint stock company of San Franciscans of which he is himself a member and manager."¹⁵ His son William remembers that his father sold the plant to the Cutting Packing Company.¹⁶

But apparently Pracht sold only his interest in the saltery because the Alaska Salmon Packing and Fur Company continued to operate at Loring, with home offices in San Francisco. Entries in the San Francisco "City Directory" begin with the 1884-85 edition and disappear in the 1894-95 edition. The entries show that in 1884 David Wilder was secretary; in 1886 the secretary was James Scott. Josiah O. Low was president in 1889 and N. W. Tallant held that office in 1890. The company moved its offices about a great deal: from 328 Montgomery to 405 Front to 19 Main to 125 Market.

Pracht stayed on at the saltery for the 1887 season, then purchased a peach orchard in Ashland, Oregon. He returned to Alaska when President Benjamin Harrison appointed him Collector of Customs for the District of Alaska. His headquarters

were at Sitka and he took the oath of office on May 25, 1889.¹⁷

Considerable controversy arose over this appointment and some of Pracht's activities at Loring were disclosed. *The Oregonian* at Portland, on January 19, 1890, headlined a story: "A Smuggler Himself. The Evil Practices of Max Pracht, Collector of Sitka. Sold Rum and Guns to the Indians." *The Juneau City Mining Record* on February 6, 1890, ran the full text of a story originally printed in a San Francisco newspaper entitled "The Rum and Gun Fiend's Record." It said that affidavits had been sworn accusing Pracht of tampering with the mail at Loring, carrying "giant powder" on board a passenger steamer en route to Loring, selling repeating rifles to the Indians, and smuggling intoxicating liquors into the District of Alaska and furnishing it to the Indians. He was also accused of importing large quantities of molasses to sell to the Indians who used it in the manufacture of an intoxicating liquor known as "hoo-chi-noo."

Despite these accusations, Pracht continued to serve as Collector of Customs until December 18, 1891, when he was replaced by E. T. Hatch of McCoy, Oregon. And apparently his activities at Loring had no bearing on his dismissal. *The Alaskan* at Sitka gave the cause of Pracht's removal as alleged violations of the law regulating the importation of

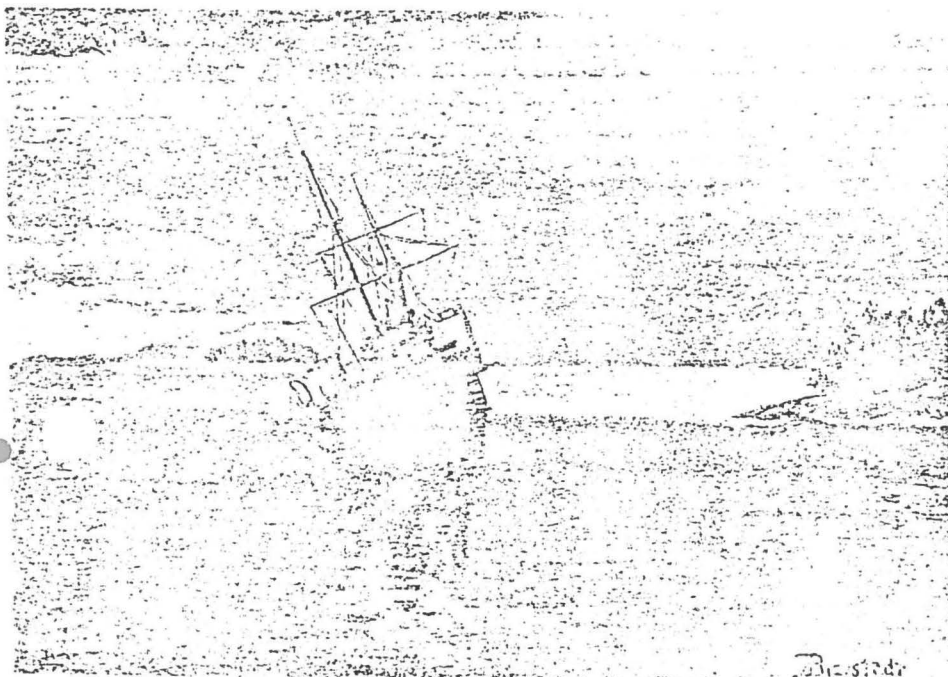
liquor. Since Alaska was "dry" at that time, liquor imports required a special permit. There had been complaints by temperance people that Pracht was too liberal in granting these permits.¹⁸

But, despite this dismissal, Pracht secured another government position in Alaska, and one which gave him some ties with Loring. In 1892, a year after he left the Customs Service, Pracht returned as Special Treasury Agent for the Protection of Alaska's Salmon Fisheries. He served in this capacity until May 1893.¹⁹

In this new capacity he visited Loring and *The Alaskan*, Sitka, on

Salmon Packing and Fur Company made an important decision, possibly brought about by Pracht selling out to Cutting Packing Company, a pioneer salmon canner. The Alaska Salmon Packing and Fur Company decided to build a cannery at Loring, to be operated by Cutting Packing Company.

It is probable that it was then that the fishing establishment was moved from the head of the bay by the falls, to the present location of Loring, closer to the mouth of Naha Bay. The cannery was completed for the season of 1888 and made a first pack of 18,771 cases of salmon. From that



COURTESY OF MUSEUM OF FINE ARTS, BOSTON

October 3, 1892, speculated: "While manager of the Loring cannery Max Pracht used an obstruction between the two lakes at that place for the purpose of catching salmon easily. We wonder whether Max went there now in his official capacity to see whether the contrivance is still in existence." Barriers in salmon streams had been outlawed and it was the special agent's duty to be certain that all were removed from every stream. But Pracht was apparently not successful in removing the barrier at Loring because there are reports that the stream was solidly barricaded through the 1893 season.²⁰ By that time Pracht was permanently settled in Oregon.

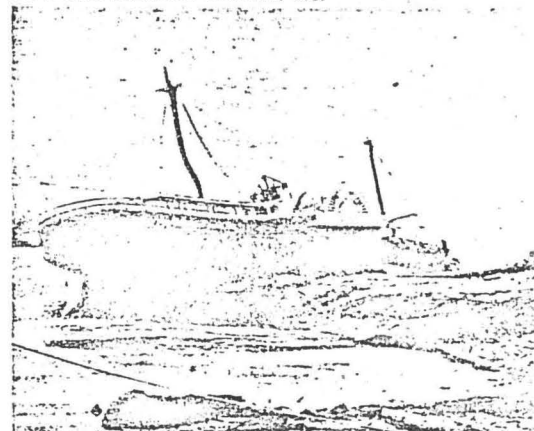
While Pracht was serving his political appointments, the Alaska

time on Loring became increasingly important in the salmon-canning industry of Alaska.

As the output of the Loring cannery steadily increased, it was inevitable that more and more steamers that plied the waters of Alaska would put in there to unload supplies and take on canned or salted salmon for delivery to West Coast ports.

With the increase in the number of steamers, Loring was no longer so isolated. And it was one of these steamers, the *Ancon*, that brought Loring to the attention of the outside world in 1889. The *Ancon* was a side-paddle vessel which carried mail, freight and passengers, some of whom were Alaska's earliest tourists. And the *Ancon* found her final

PROVINCIAL ARCHIVES, VICTORIA, B.C.



Above—The abandoned wreck of the side-paddle steamer *Ancon* near the Loring cannery.

Left—"Wreck of the *Ancon* in Loring Bay, Alaska," is the title of this painting by the noted American landscape artist, Albert Bierstadt, who was a passenger. The original measures 14 by 19 3/4 inches.

resting spot on the reef in front of Loring.

On her fateful last journey the *Ancon* left Port Townsend, Washington, on August 12, 1889, to make her regular monthly voyage North. She stopped at various salteries and canneries and at the towns of Juneau, Fort Wrangell and Sitka, as well as making a tour of Glacier Bay, then as now a prime tourist attraction. On her return voyage she arrived at Loring on August 28 and took on a load of canned salmon.

At 3 o'clock in the morning, with Capt. H. H. Lloyd, the pilot, in charge of the bridge, the steamer prepared to leave. On the wharf a Chinaman, one of the cannery hands, was casting off the lines. He did not understand when Captain Lloyd called out to keep the stern lines secure so the ship could swing around on them as she left the wharf. A stiff wind was blowing and when the cannery hand let the stern lines go the men at the wheel could not control the ship in the narrow waterway. The *Ancon* drifted hard onto a reef that was a few feet out from shore.

The tide was falling and by 6 o'clock it had fallen sufficiently to

show that the *Ancon* was hopelessly wrecked. She was high on the reef and a rock had pierced her amidships. Water flowed into the gaping open side of the vessel. The passengers were awakened and transferred to shore with their luggage. It was raining steadily and some 200 passengers and crew began a search for shelter. About 60 of them "literally took up their beds and walked into the cannery where they were soon enjoying sweet sleep mingled with an atmosphere strongly impregnated with fish."²¹

The ladies were quartered in the superintendent's house. A few people secured accommodations in the attic of the store and others found shelter in Indian huts. Several celebrities were aboard the *Ancon* and they joined the ladies in the superintendent's house. Among these were Governor Adams of Colorado and his family, and Albert Bierstadt, an

artist who had already gained fame for his landscape paintings.

From onshore the artist painted the *Ancon* lying wrecked. And he wrote his wife, Rosalie, "I am busy all the time and have 60 studies in color and two books full of drawings of Alaska."²² Two or three of these colored studies have survived. Unfortunately, the whereabouts of the remaining paintings and both of the books of drawings are unknown.²³

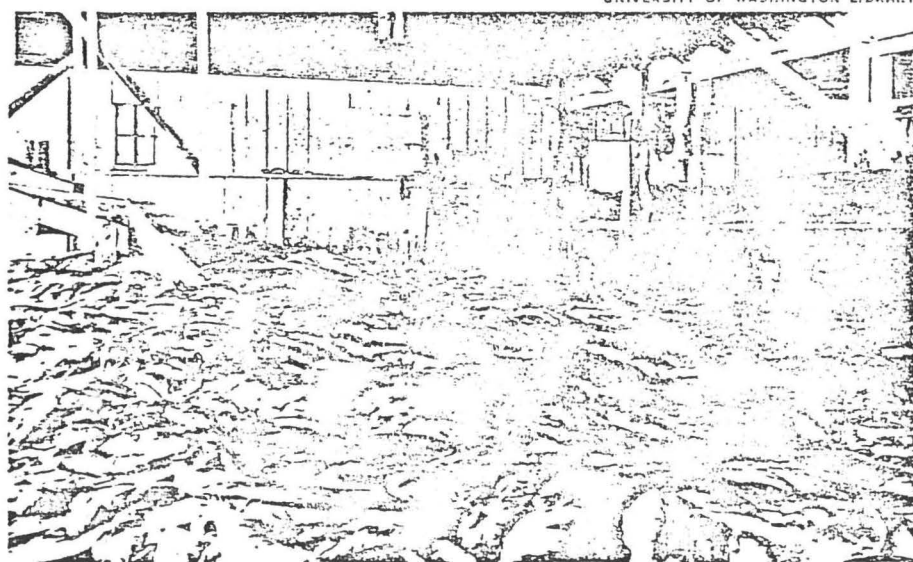
Bierstadt and the other passengers were served meals at the Chinese mess house with provisions saved from the ship, but only 20 could be served at each sitting. The passengers expected to stay at Loring for at least a week before word of the disaster could reach Victoria or Port Townsend, but to their surprise and delight the *George W. Elder*, on her regular voyage to Alaska, steamed into Loring the morning following the wreck. And the *Ancon* passengers

Once the *Elder* departed, salvage work began on the *Ancon*. Since the wreck could be reached by foot at low tide, most of the 14,000 cases of canned salmon were salvaged. The ship's nine lifeboats, all of her cordage, and all the machinery that could be detached were taken away. By 1890 the wreck was described as being "half demolished on the beach, a sad picture to behold, her upper works charred and blackened by fire and her hull twisted out of shape."²⁵ There is no record of how or why the wreck was burned. Today the rusted boilers can still be seen at low tide.

Salmon cans were made up by hand in the spring, before the fish runs started, and stacked in the warehouse until needed.



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Salmon on the cannery floor ready for butchering, all of which was done by hand in the early years.

were even more delighted when Capt. David Wallace of the *Elder* agreed to take them at once to Port Townsend instead of leaving them until her return trip.

Certainly a week or more at Loring did not appeal to most of the stranded passengers. Ben Kramer of Lakeport, Indiana, described Loring this way: "This place is nothing but a fishing camp. It contains a salmon cannery and about 100 white men, who work about it during the season, but not one solitary white woman. About two dozen cabins, which with the cannery and the wharf, compose the village."²⁴

During the 2 years after the *Ancon* passengers described Loring, few changes appear to have occurred in the fishing village. The 1890 census report describes it thus: "During 8 months of the year Loring has the appearance of being a thriving village. About 40 native houses are scattered along the sides of the mountain. . . . The company has an extensive general merchandise store and deals largely in furs. The principal shipments of skins, however, are those of the deer, large numbers of which are brought here by the natives every season. The company has in the neighborhood of \$50,000 invested."²⁶

The census, obviously taken during the fishing season, gave the population as 200, broken down to include 27 white men, 1 man and 1 woman of mixed blood, 120 Indians and 51 Mongolians who were undoubtedly Chinese cannery crewmen.

When winter came half a dozen white men stayed on. All other employees returned to their homes in the coast states or, in the case of the Indians, returned to their respective villages. Although the village remained much the same in appearance, the cannery output increased with each year until it was the largest in this part of South-eastern Alaska.

With the increased demand for canned salmon and the inability of the coast states to keep pace, the number of canneries in Alaska rapidly increased until in 1890 there were 38 in operation. The inevitable happened: Production outstripped the demand and canned salmon became a drug on the market.²⁷

Up until that time each cannery had operated without regard to the others, as did the one at Loring. But when it became obvious that a reduction of output would be necessary, a number of canneries pooled their packs in September 1891, under an organization called the Alaska Salmon Cannery. Alaska Salmon Packing and Fur Company became a part of this association, represented by Francis Cutting and Sidney M. Smith. The latter was

soon there was a move to form a more permanent organization. On January 13, 1892, the Alaska Packing Association was incorporated and Sidney M. Smith was issued 115 shares of stock for the Alaska Salmon Packing and Fur Company. Smith became president of the new corporation. Fred P. Kendall was listed as superintendent of the Loring cannery, but he held the position for only that one year.³⁰

The 1892 operations at the Loring cannery were little changed but the pack of 21,402 cases was the smallest since the first year of operation. Salmon was canned under five brand names: Clarence Straits, Fisherman, Meteor, Naha Bay, and Climax.³¹ The Climax brand was for 1,000 cases of pink salmon which, according to J. R. Heckman, were the first ever canned.³²

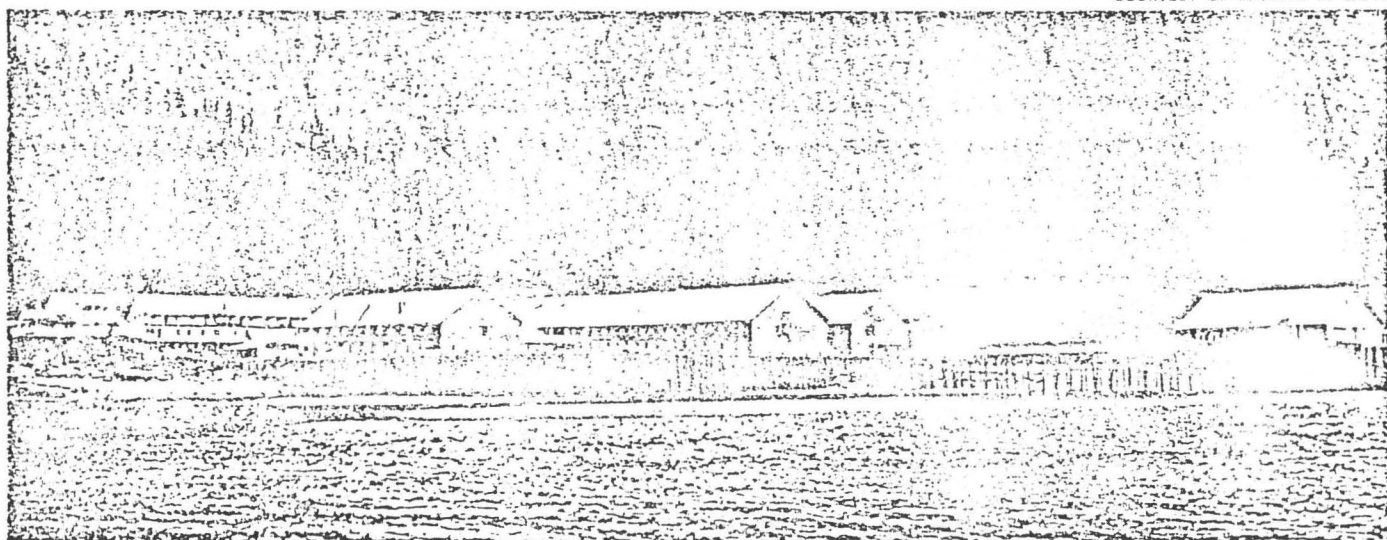
In 1893 the Alaska Packing Association reorganized as the Alaska Packers Association, a firm that remains in business to this day. The cannery at Loring became a part of the new firm and Alaska Salmon Packing and Fur Company was issued 300 shares of stock at \$65 per share, or a total of \$52,000, in payment for the plant at Loring. The

Nova Scotia in 1865, had come from San Francisco to Cook Inlet aboard a sailing ship in 1886 and fished a gill-netter for the Arctic Fishing Company which had a cannery at Kasilof. He returned the following year as a machinist's helper and in 1888 he went to the new cannery at Loring in the same capacity. Two years later he was made foreman and in 1893 became superintendent.³⁴

The Alaska Packers Association became the largest salmon-canning company operating in Alaska. Each spring a fleet of its steamers, schooners and square-riggers was dispatched from Oakland and San Francisco to Alaska. Aboard these vessels were supplies, gear, fishermen and laborers required for the canning season. Supplies included tin plate for making cans, pig lead, soldering crystals, caustic soda, lacquer, oil, coal, labels and food for both the whites' and the Oriental workers' messes.

For a number of years the shipments also included wooden shooks for making up into salmon cases, but when sawmills began operation in the Loring vicinity the shooks were purchased locally. For several years a sawmill at Port

COURTESY OF PATRICK W. LLOYD



appointed one of the five directors of the association and became its president.²⁸ Included in the salmon pool were 1,319 cases of Naha Bay brand red salmon and 3,918 cases of Naha Bay brand silver salmon. Undoubtedly there were from the Loring cannery.²⁹

The pool of the Alaska Salmon Cannery was only temporary, but

principals of the old company also subscribed to an additional 443 shares of stock in the Alaska Packers Association, also at \$65 a share, for a total of \$28,145.³³

James Robert "J. R." Heckman was put in charge of the Loring cannery as superintendent, a position he was to hold through the 1918 season. Heckman, who was born in

The cannery at Loring in some years put up the largest pack of any plant in Alaska.

*The cannery wharf at Loring with
the Star of Scotland on the far side.
She was there in 1909 and 1910.*

Chinese crews. This involved cutting the sheets of tin plate to size, then soldering each can together, a slow and laborious process that occupied the crews from their arrival until the canning began toward the end of June. While this was going on, the machinists and their helpers were overhauling the machinery that had stood idle during the winter months and the fishermen hung the nets and readied the boats for fishing. Along in late May or early June the Indians

1896 the company operated 21 drag seines which varied in length from 75 to 250 fathoms and were usually 200 meshes deep. At first enough fish could be secured in Naha Bay, but with intensive fishing the supply in the bay dwindled and grounds farther and farther from the cannery were fished.

In 1896 the cannery either employed or bought fish from 50 white and 75 Native fishermen. In the cannery itself there were 130 Chinese,



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Gravina on Gravina Island supplied the box shooks; after 1905 they were purchased from the Ketchikan Power Company which is the present-day Ketchikan Spruce Mills.

In early years under the Alaska Packers Association the company chartered the principal supply vessel for the Loring cannery and the season started with her arrival from San Francisco, usually in April. The first job was to unload the gear and supplies. At that time, cans were made by hand, usually by the

began to arrive from their winter villages, some to fish and some to work in the cannery.

The fishing season, in those unregulated days, began when the salmon commenced their annual migrations to the spawning grounds. At Loring the first red salmon showed up between June 14 and 20 and the fishing for the various species continued until about the end of August. In early years of the Loring cannery, fishing was entirely with beach seines or drag seines. In

6 whites and from 15 to 20 Native women.

Purse seines were introduced near the turn of the century and began to replace the drag seines. They were set from large rowboats until the power boat came into use some years later. Those rowboats, with their nets and crews, were towed to distant fishing grounds by steam cannery tenders which then picked up the catch each day and took it to the cannery. In 1900 the company employed 100 white fishermen who

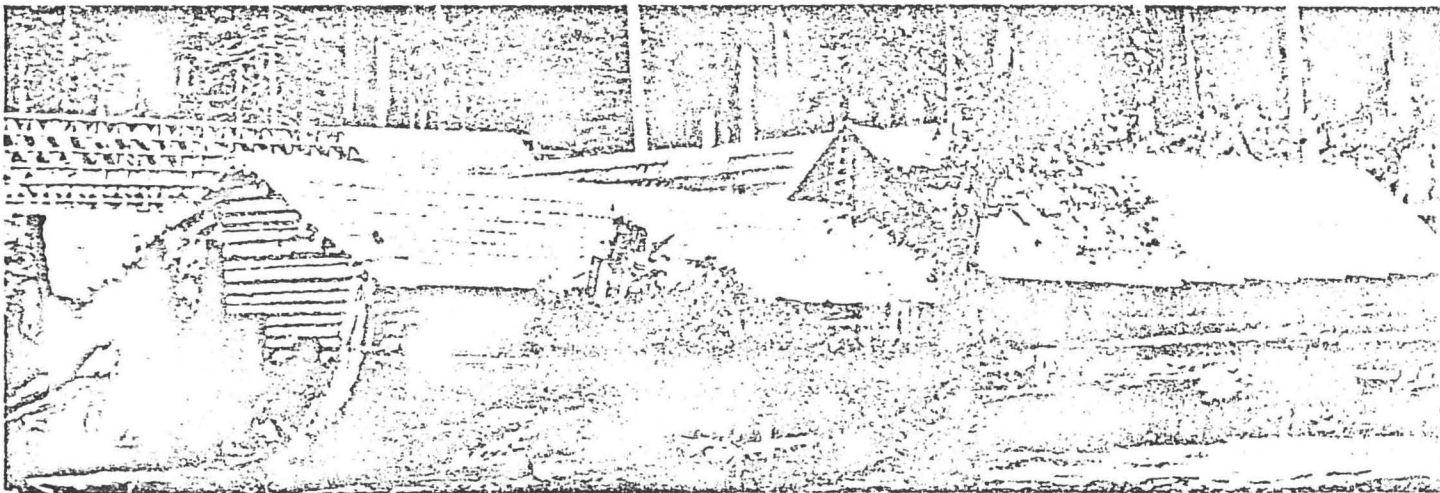
reported in the newspapers of the times. Their brushes with the law generally involved seizures of opium and yen shee and sometimes Chinese liquor. Despite these disturbances and the use of home-brew and narcotics, the Loring cannery put up a pack each year except for 1921, the only year in its 48 years of existence that it did not operate.

The Alaska Packers put up increasingly larger packs at Loring.

head of Naha Bay and through miles of woods to Ketchikan. During the month of May 1907, according to the *Daily Miner* at Ketchikan, the telephone line was relocated so that it ran along the beach. It began functioning again on June 10, 1907, and so far as is known continued in operation until the cannery closed.

In 1911 the Loring cannery first tried to change over from the old-style soldered cans to the double-

*The Fortmann Hatchery of the
Alaska Packers Association
on Heckman Lake.*



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With such diverse crews, more than one disturbance occurred over the years at Loring, although newspaper accounts give the impression that the various nationalities fought among themselves rather than against each other. Perhaps this can be accounted for by the fact that separate quarters and mess halls were provided for each nationality.

One disturbance was termed "a small Mexican war" by the *Ketchikan Alaska Chronicle*, August 6, 1923. That was during prohibition and the cook had started a large container of sourdough and fruit working in a corner of the kitchen. A waiter, fearing one of the frequent raids by the law, threw out the mixture. That enraged the cook and a bloody battle began with meat cleavers and 12-inch butcher knives. Friends soon began to take sides and two men went to the hospital and one to the jail in Ketchikan. The participants were fortunate this time—several years earlier the Mexican crew boss was stabbed and bled to death in the same type of fracas.⁴⁰

Either the Orientals were not so violent or their battles were not

In 1897 the total was up to 62,040 cases which was the largest output of any Alaska cannery that season.⁴¹ It is not known what the cannery's largest pack was because in some years only consolidated pack reports were published, but in 1904 the output was 111,820 cases.

The increasing packs required updating of the cannery facilities. The original capacity of the plant was 400 cases per day. Better methods increased this to 700 cases a day, and in 1896 the plant was enlarged to a capacity of 1,800 cases per day.⁴² Then in January 1901, preparations were made to build an entirely new cannery on the site of the old one. Lumber for the buildings was cut by a sawmill at Ward Cove, the site of today's Ketchikan Pulp Company plant.⁴³ The new plant included a cannery building 58 by 270 feet, a two-story warehouse 60 by 170 feet, and another 40 by 125 feet. Three fillers were installed, and 10 retorts, giving the cannery a capacity of 2,600 cases a day.⁴⁴

At some early date, not yet established, a telephone line was run from the Loring cannery, around the

seamed kind known as "sanitary" cans. Apparently the experiment was not successful for no complete cans were purchased in either 1912 or 1913. In 1914 the cannery again experimented with complete cans and they must have been satisfactory because the annual reports contain no further mention of the tin plate, pig iron, tin and lacquer used in making cans at the plant. And at this same time the China contract dropped to 24 cents per case for the guarantee and 15 cents per case over the guarantee.⁴⁵ Undoubtedly this reflected the fact that no labor was now required for making cans.

Once the salmon had been wrapped up in cans and cooked, labels were usually affixed to the cans, although some cans were shipped unlabeled so that distributors could apply their own. The Alaska Packers Association used many brand names, both at Loring and elsewhere. These included:

Silver or coho salmon: Arctic, Association, Spring, Neptune, Tally Ho, and Sledge.

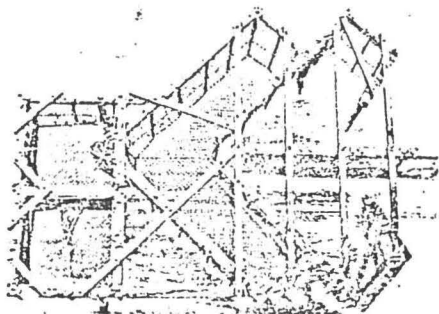
Pink salmon: Clarence Straits, Meteor, Nautilus, Bartlett Bay, Helmet, Lily, Sailor, Naha Bay,

received \$45 plus board per month, with all fishing gear and boats supplied by the company. Fish were also purchased that year from 150 Indians at 5½ cents to 7 cents for redfish, 7 cents for cohoes, and \$6 to \$7.50 per thousand for humpbacks.³⁵

In 1901 the cannery was using 50 purse seines and was fishing Karta Bay, Skowl Arm, Moira Sound, Union Bay, Smeaton Bay, Boca de Quadra, Hetta Inlet, and various places around Behm Canal. The cannery tenders were the steamer *Arctic*, 21 tons; steamer *Novelty*, 33 tons; and the new steamer *Kayak*, 73 tons. Other steam cannery tenders used at Loring at various times included the *Ella Rohlfss*, 36 tons, and *Pacific*, 32 tons.³⁶

The fish trap, an efficient method of catching salmon, also came into use at Loring around the turn of the century. The first ones were of piling hung with webbing, positioned across the migratory paths of the salmon so as to lead the fish into a holding section from which escape was virtually impossible. The salmon were removed by brailing when needed for canning. Then J. R. Heckman invented a floating fish trap, which he patented in 1908, and it came into general use in South-eastern Alaska and became the principal means of catching salmon for the canneries. The Loring cannery had six floating and five

Below—Model of the floating salmon trap perfected by J. R. Heckman, superintendent of the Loring cannery.



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piling traps in 1917, but generally decreased the number of its traps in subsequent years.

Once they reached the cannery, the salmon were processed by laborers, mostly Orientals, the majority of whom were brought North by the company on the supply ship. From

the beginning, the Alaska salmon canneries found it necessary to import most of their workers—there were not enough available people in Alaska to fill the jobs. Many Alaskans did not choose to do the monotonous and sometimes disagreeable tasks involved. Chinese crews proved to be the answer.

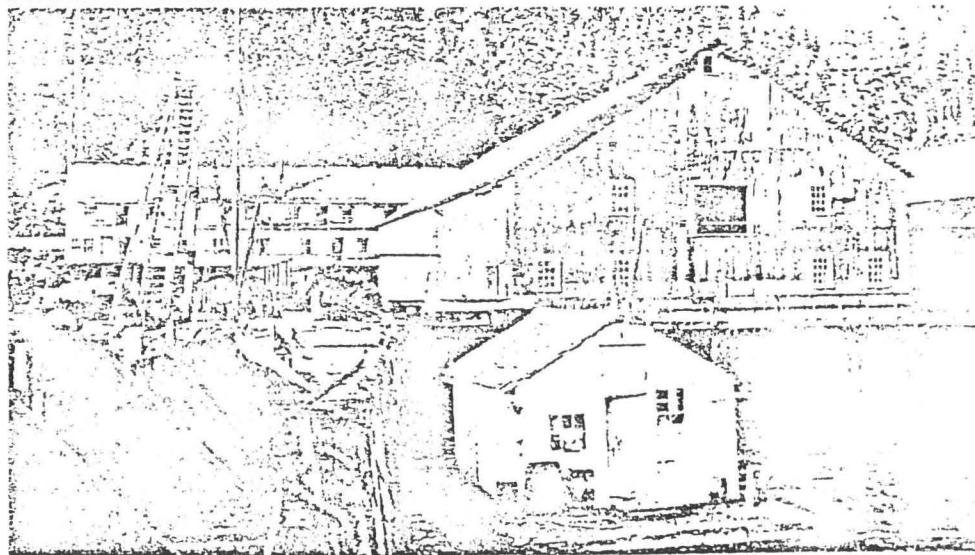
The Chinese crews were hired on a contract basis. In San Francisco, Seattle, and perhaps other large cities along the coast there were labor agencies, mainly owned by Chinese, and these made a specialty of furnishing crews to canneries. In the agreement between the cannery and the contractor, the cannery guaranteed to pack a certain number of cases during the season. The contractor agreed to furnish a crew to do all the work from the time the fish were delivered to the wharf until the filled cases were loaded aboard the transport vessel. The contract was for a fixed sum per case, with any excess over the guarantee also paid for at so much a case. If the pack fell short of the guaranteed

an example of the arrangement, in 1897 Chew Bun agreed to provide 130 men, for a guarantee of 40,000 cases at 40 cents per case plus 1 cent per case for making boxes. By 1900 the contract price had increased to 42½ cents per case.³⁷ As the size of the pack increased at Loring so did the case guarantee and the contract price: In 1903 it was 52½ cents per case on a guarantee of 63,000 cases.³⁸

After 1904 the China contract was held by Hong Yick Company, Chew Mock and Chew Chew, perhaps because they asked only 47½ cents per case up to the guarantee and 42½ cents per case over the guarantee. In that year, 1904, 111,840 cases were packed.³⁹

The records show that at about 1904 not only Chinese but Japanese were working in the canneries. In fact, the labor contract became known as the Oriental contract and eventually the crews became a mixture of Filipinos, Japanese, Mexicans, Puerto Ricans, Chinese and Italians.

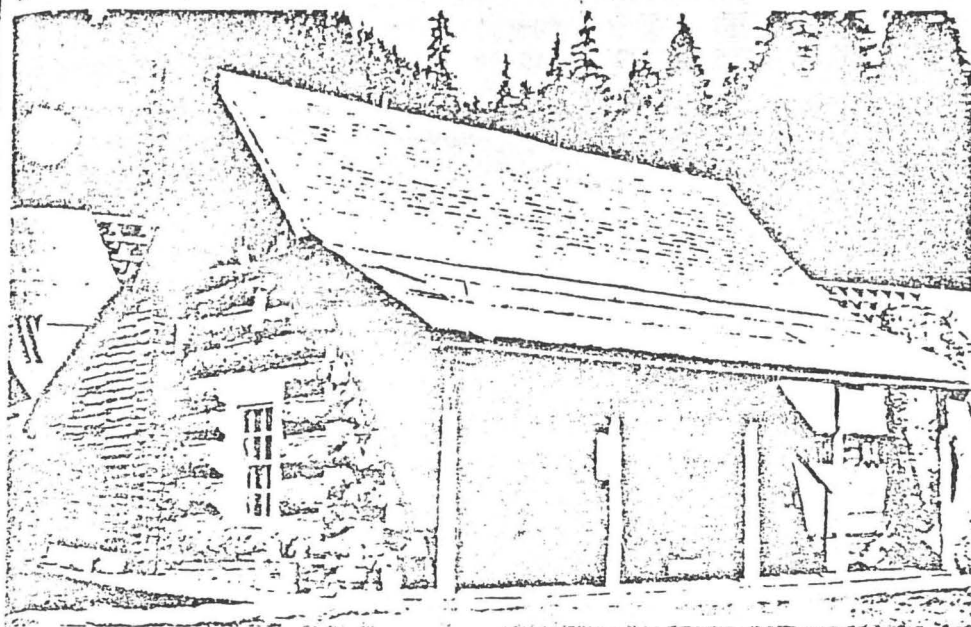
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number of cases, the contractor was paid the guaranteed amount. The cannery company transported the Chinese crew to and from the cannery and provided a bunkhouse, fuel, water and salt. The contractor fed them and furnished a cook and a Chinese "boss" or foreman who in 1905 at Loring received \$350 for the season.

The China contract at Loring in the years from 1895 to 1903 was held by Chew Bun of San Francisco. As

The Loring cannery in 1918, from the cargo dock. The mess house is in back, the main warehouse in the center and the cannery at the right.



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The superintendent's house at
the Fortmann Hatchery.

Mono, Totem Stick, Export, and Guaranty.

Red salmon: Raven, Fisherman, Naha Bay, Horseshoe, Our Taste, and Arctic Red.

Chum salmon: Bartlett Bay, Totem Stick, and Express.

"Seconds," or canned salmon that did not meet first-class standards, were marketed under the brand names Target, Czar, and Siberia.⁴⁵

After the salmon cans had been labeled and packed in wooden cases—24 No. 1 tall cans to a case—the cases were either stored in a warehouse or placed directly aboard the ship which remained at the cannery all summer. As a rule, the sailors from the ship worked as fishermen during the summer. In its early years the company mostly chartered the sailing vessels it used, although it did own a few. After the turn of the century it rapidly built up its own fleet by buying iron and steel vessels, most of them foreign built. One of the first of these was the *Star of Russia* and she became the name ship for the fleet, all of which were given *Star* names.

At Loring the vessels used were: chartered bark *Elsinore* in 1893; chartered bark *Coryphene* in 1894; bark *Electra* in 1895, 1896 and 1897, with the added help of the bark *Nicholas Thayer* in 1897; chartered bark *Hecla* in 1898; chartered ship *Lintram* in 1899, 1900 and 1901; chartered ship *Balclutha* (later purchased and renamed *Star of Alaska*) in 1902; chartered ship *W. H. Macy*

in 1903, 1904 and 1905; chartered ship *Charles E. Moody* in 1906; bark *Star of England* in 1907 and 1908; bark *Star of Scotland* in 1909 and 1910; bark *Star of Zealand* in 1911 and 1912; bark *Star of Lapland* in 1913; bark *Star of Poland* in 1914, 1915 and 1916; bark *Star of Russia* in 1917.

In the seasons of 1918, 1919, 1920 and again in 1922, the big four-masted bark *Star of Greenland* served both the Loring and Wrangell canneries of the company, stopping first at Loring with supplies, then towing to Wrangell where she spent the summer, then loading the packs of both canneries for the trip south. In 1921 the Loring cannery did not operate. In the seasons of 1923 through 1926 the *Star of Greenland* served Loring exclusively, and 1926 was the last year a sailing vessel came to Loring. During the remaining life of the cannery, either commercial or company steamers carried the cargo and passengers.

In the sailing ship years, once the season's pack had been loaded aboard the vessel and the fishermen and cannery crews had piled aboard, the square-rigger was towed to open water for its return voyage to San Francisco and Loring settled down for the winter much as it had done every year since its start. The Indians who had flocked in for the fishing season returned to their winter villages. The United States Commissioner of Education was apparently unaware of this annual migration

because in 1887 he proposed building a school at Loring. He felt that "in Southeastern Alaska there are three small villages of Port Tongass, Cape Fox and Scowls, neither of them with a population sufficient to justify the expense of a school, and yet, if united, would form the constituency of a good school."⁴⁷

In hope that a united village would be located at Loring, Professor S. A. Saxman of western Pennsylvania was sent there. Finding that the Indians had returned to their winter villages, Saxman moved to Tongass for the winter of 1886-87.⁴⁸ In 1888 he was again listed as being appointed to the school at Loring and expenses of \$30.60 for school supplies were shown. Whether Saxman actually taught at Loring that year or whether he went back to Tongass is not known.⁴⁹

The wish for the Tlingit villages of the southern part of Southeastern Alaska to unit at Loring never materialized. In the search for a new village site, Saxman and two Native leaders were drowned. Eventually the Indians agreed to a united settlement just south of the small village of Ketchikan and they named the place Saxman in honor of the teacher.⁵⁰

Apparently it was not until 1908-09 that sufficient numbers of children remained the year-around at Loring so that a school was established. Miss Mary A. Chatfield, from the District of Columbia, was the teacher from 1908 until 1911. Later teachers included Mrs. Leona Goodheart, Margaret Hamilton and Helen C. Moyer, and their average enrollment ranged from 21 to 28 students. The school was maintained by the U.S. Bureau of Education until the 1917-18 school year when it was first listed with Territorial schools outside of incorporated towns.⁵¹ The Loring

school apparently was discontinued after the 1920-21 school year.

In addition to the cannery, the school and the general store at Loring, at least two small fish oil plants operated there from around 1892 until about 1905. One was known as the Ketchikan Eulikon Smoking and Oil Company, the other as the Ketchikan Ka-Ko Oil Company. Both companies processed the livers of dogfish, a variety of shark, that swarmed around the cannery docks feeding on the salmon gurry.

In 1892 it was reported that 10,000 gallons of oil were extracted, to be used as skid grease in logging camps and for other lubricating purposes and for mixing in paint.⁵² In 1903 the Ketchikan Ka-Ko Oil Company built a new plant and refined a portion of its product. This was introduced as a medicinal oil and a remedy for scalds and burns.⁵³

Although not located directly at Loring, the Alaska Packers Association maintained a salmon hatchery in connection with the Loring operations. The hatchery was built as a result of legislation in 1900 which required each person, company or corporation taking salmon in Alaskan waters to establish and conduct a hatchery near the fisheries operations and to produce "four times the number of mature salmon taken during the fishing season." In 1902 the law was amended to read "ten times the number of mature salmon taken during the fishing season."⁵⁴

In consequence of this law, during the summer of 1901 the Alaska Packers Association built the Fortmann Hatchery on Heckman Lake, the third of a series of lakes drained by the Naha River. The hatchery was named for Henry F. Fortmann, long-time president of the company. The superintendent of the hatchery was Fred Patching who had received his training at McHenry Inlet from John C. Callbreath, one of the pioneers in Alaska fish propagation.

The Fortmann Hatchery became the largest and most expensive in the world and had a capacity for 110,000,000 eggs, although it was nearly impossible to secure sufficient eggs to fill it.

The fish hatchery law was changed in 1906 so that it was no longer

mandatory for canners to maintain hatcheries. Instead, as an incentive, the new law allowed a tax rebate for those who operated hatcheries. The Packers continued operations at Heckman Lake and released between 12 million and 17 million fry each season until the end of the 1927 season when it was decided to close the hatchery.

That year was a particularly poor fishing season in much of Alaska and the Loring cannery packed only 7,730 cases. The catch picked up again during the next few years and in 1930 the cannery at Loring put up 56,027 cases. But the company was finding its Southeastern Alaska operations unprofitable. The cannery up at Chilkat had long since been closed, while the plant at Point Highfield, near Wrangell, was last operated in 1926. The same decision was reached with regard to Loring and the 1930 pack was the last one made there.

The cannery building and its equipment were dismantled so that

all that remains today of the big plant are some rotting floorboards covered with moss and small evergreens. Warehouses and other building collapsed with age or were torn down.

But Loring, unlike so many cannery sites, was not completely abandoned. Several families maintained residences there, year-around or during the summer months, and people continue to live there to this day. The Stack family, several of whose members worked for the company, stayed on for many years. Novelist Margaret E. Bell and her husband Sam Wiks lived in Loring for years and only recently sold their home to Mr. and Mrs. Mark Hundley.

Although the Loring post office was discontinued early in 1936, mail is received from Ketchikan once a week via an air taxi service.

But without the cannery and its affiliated store, there is today very little activity at the once-thriving village of Loring on Naha Bay.

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SECTION THREE: LIFE AT SEA

BALCLUTHA
LIFE AT SEA

The following manuscript was written by Captain Alfred Durkee, master of the Balclutha from 1894 to 1899. From the Library of the National Maritime Museum, San Francisco.

PART II

LIFE ON A SAILING SHIP

Being some general recollections by Captain Alfred H. Durkee, master of the full rigged ship "Balclutha" and other vessels, describing life at sea in the period 1877-1899.

SHIPPING A CREW

Getting a new crew aboard a sailing ship was always more or less exciting, especially in the old days. Some of them would be drunk, some only tipsy -- they say a man partly drunk will show up his disposition: if he is a quarrelsome fellow, then he will want to fight someone, and if good natured he is around making a nuisance of himself, passing jokes and trying to make himself a good fellow. Then is the time that the officers show up for what they are worth -- handling men -- for work has to be done and the ship got ready for sea. Of course, if a man is drunk there is nothing to do but put him in his bunk and let him sleep it off.

A man called the shipping master is usually employed by captains to get their crews, and the ship has to pay half a month and sometimes a month's wages in advance. This is supposed to go toward paying their debts ashore, but very often the larger part of it went to the shipping master, and many of them were rogues. There used to be a shipping master in Quebec who was a notorious character. He once put a dead man on board, telling the mate -- who perhaps had a drink in himself -- that the man was dead drunk, so they put him directly into his bunk. Of course the shipping master got the advance, as they are usually paid two or three days after the ship sails. Another time he put a Catholic priest on board. He got the man drugged and when he came to, they were away down the St. Lawrence River. Then he came to the captain, telling his story, and showing his hands, which were proof enough that he was not a sailor; so the captain put him ashore in one of the small boats. This is called "shanghaiing" a man, to get him drunk or drugged and put aboard a ship.

OUTWARD BOUND: THE NORTH ATLANTIC

One of the first things done after getting away to sea and the work around the deck done up, is to choose watches. The chief and second mates are watching the men while they are at work getting the ship under way, and by the time they are ready to choose watches they have a pretty good idea which are the better men; so they call them all together on the after deck, and the chief mate takes the first choice, and so they call them one after the other. The mate's watch takes the port side and the second mate's the starboard, and after they are divided, the chief mate gives the orders, or the rules of the ship, which used to be very strict. Some of them would be, "Any man caught sleeping while on the lookout will

be kept up his watch below and given a job aloft;" "Watches must be always prompt in coming on deck at eight bells and relieving the wheel and lookout;" "Every man when receiving an order from an officer must be careful always to answer;" etc., with a little general advice thrown in.

It is always a great relief to the captain when he has his ship out clear of the land, and under full sail. Then he can make long tacks with head wind and no danger of running ashore. The crew cannot do much work around a ship departing Europe during winter months except trimming the yards and sails. The winds usual in the winter are from the westward and stormy, but after passing the coast of Spain, the weather gets finer and at Madeira it is ideal. To the south of Madeira, along about 30 degrees north latitude, are the calms of Cancer which bother ships in getting through. It is here that ships change their sails and some of their ropes, all the bad weather ones coming down, and fine weather ones going up in their places.

Ships from American ports, after crossing the calm belt get into the Sargasso sea, where the sea weed and wreckage collect on the water, the sea weed being so thick that it looks from a distance like land. In fact I had a man on the lookout one moonlight evening when in the Straits of Florida, startled everybody on board by shouting out, "Land ahead, sir!" It was nothing but sea weed. It is said that sometimes ships have great difficulty in getting through the sea weed in this sea. I can easily imagine the difficulty with light, variable winds. Fortunately, I never was caught there. From European ports we do not get into this sea, as it does not extend so far over.

The work of the ship was by now really commenced. After going through so much bad weather, there is always plenty of work to be done, both aloft and on deck. Aloft are the blocks, foot ropes, and all the different parts of the rigging to be overhauled and repaired, or new ones put up in their places. There are always men aloft working. It is hard work to be in the rigging with your legs twisted around the shrouds, especially if you are there for the whole watch of four hours.

The men call "working up their dead horse" the first half month or month at sea, as the case may be, or until their advance is worked off. After they get out to sea they look over their clothes and see if the boarding master, usually a rogue, has put in what he agreed. In most cases they would find they had been robbed, unless they were sober fellows; in that case they could look after their own interests. A sailor taking his clothes out of his bag or chest and looking them over is called "overhauling his donkey."

FORECASTLE AND CABIN

The sailors live in the forecabin which is either under the fore-castlehead, or in the forward house. They are divided into watches or gangs, half in each watch, and one watch is always on deck at sea. The port watch will have the port side of the forecabin, which is on the left, and the starboard watch, the starboard side. The petty officers

usually have rooms in the forward house. The first, second and sometimes the third officers have rooms aft in the cabin. They would have the forward part of the cabin and the captain would have the after part. On top of the cabin is usually the poop, except where the house is built up higher with an alley-way between it and the rail. In that case, a man could be walking on top of the house, or he could be on the quarter deck which is aft by the wheel, or as it is sometimes called, according to the build of the ship, the cock-pit. I am speaking now of the old wooden ships; in later years they built large steel ships with cabins, staterooms and wheel houses amidships.

But usually in the old type of ship, when the captain was on deck, he would be on the poop. The captain was usually spoken of among the crew, as "the old man." It did not matter how young he was, and sometimes it would be the skipper, but that title applies more to the captain of small schooners. The captain's wife would be the "old woman" or the "missus."

TACKING AND WEARING A SHIP

The captain or officers give orders to the men. If they want one to come aft or go forward they wouldn't say, "Come here," but "Lay after here" or "Lay forward," or if they wanted them to hurry, which was often the case, it would be "Bear a hand there!" If a man was wanted to go out on a yard, it would be "Lay out," or if to go up a mast, "Lay aloft."

A ship is worked at sea by tacking, wearing, and boxhauling. The different ways are used according to the strength of the wind, or the height of the sea, and also the distance we would have between the ship and danger, such as land, shoals or rocks. With a fresh to moderate breeze we would tack, but if the breeze was very light, it would be a case of wearing, or if too strong, we would also wear, for in that case tacking would probably damage the sails and perhaps the rigging.

It is a much finer piece of seamanship to tack than it is to wear. To tack, everything must be in readiness, ropes all coiled down so they will run out without fouling, and the captain must give his order just the right moment, for if he waits a few minutes too long, or if he gives his order a few minutes too quick, the yards would not fly around, consequently the crew would have a lot of extra work hauling, etc. A whale running away with a harpoon line would not go faster than the ropes running out aboard of a ship when tacking in a strong breeze. Sometimes we would get the ship in irons, so called, either by a flaw in the wind, or not hauling the yards at the right time. If a man was tempted to swear, that is the time he would do it, for all the work would have to be done over again.

Of course, the hardest work done at sea was pulling the ropes or hauling on the ropes. Either the braces which hauled the yards around or the halyards which hoisted the yards and sails aloft. Or taking in sails, which was called shortening sail, or setting them again after the bad weather is over, which is called making sail. In

pulling on the halyards, which is the hardest work, if they are the heavy ones, they sing or shanty to make the work go easier. The halyards for the heavy yards are quite large ropes rove through large blocks making a strong purchase. The ends of this rope come down through a single block a lead block so the men can stretch it across the deck and pull, and when 15 or 25 men get hold of it hauling, something must come.

SEA SHANTIES

We will suppose a rope comes down here through a block, and across the deck -- three or four men will get hold of it, above the block, which would be called "before hand," and the rest would be stooped over, holding on the rope. One of the men before hand would sing a song. This man would lead out; he would stand with one hand on the rope, and sing in a loud rollicking voice, perhaps the whiskey shanty which seemed to be quite a favorite among them:

"Oh, whiskey made me go to sea,"

Then they would all join in the chorus,

"Whiskey for my Johnnie."

And when they commenced "whiskey" the shanty man would put his other hand up on the rope, and they would all get ready to pull, just as you have seen a pair of well trained draught horses get ready when the driver commences to gather up the reins. When they sing "Johnnie," they pull not one after the other, but pull as one man. Then the leader would go on again:

"Whiskey killed my poor old dad,
Whiskey for my Johnnie.

Whiskey here and whiskey there," etc.
Til the yard was up.

Another one:

"As I was walking down the street,
A pretty girl I chanced to meet,"

And the chorus went:

"To me way, hay, blow the man down,
Blow the man down, Johnnie,
Blow the man down.
To me way, hay, blow the man down.

I say, Mr. Man, that is just where you are wrong,
Give me some time to blow the man down."

Another one :

"As I was walking down Paradise street,
With my Aye, Aye, blow the man down,

I chanced on a frigate girl so nice and so neat,

Give me some time to blow the man down."

In this shanty, they pull when they say "down", and a witty fellow could add a lot as he was going along, which was never in the original.

There was another, called the "Ranzo Song," and they pulled when they sang "Ranzo:"

"Now I'll sing of Ruben Ranzo; Ranzo, Boys, Ranzo,
He was the son of a New York tailor, Ranzo, Boys, Ranzo,
So they put him aboard a whaler, Ranzo, Boys, Ranzo,
But Ranzo was no sailor, Ranzo, Boys, Ranzo,
And he could not do his duty, Ranzo, Boys, Ranzo,
So they took him to the chief mate, Ranzo, Boys, Ranzo,
And he gave him four to twenty, Ranzo, Boys, Ranzo,
But the captain being a good man, Ranzo, Boys, Ranzo,
He told Ranzo he had plenty, Ranzo, Boys, Ranzo,
The winds blow high and the winds blow low, Ranzo, Boys, Ranzo.
So we'll hoist the sail and let her go, Ranzo, Boys, Ranzo
But I thought I hear the Chief Mate say, Ranzo, Boys, Ranzo,
Now one more pull and then belay, Ranzo, Boys, Ranzo,"

The shanties used in heaving up the anchor were a little different. In that case there was no pulling, but a continual walk around the capstan, shoving on the bars. The shanty man would sometimes sit on top of the capstan, and of course, turn around with it.

One was:

"Our anchor we will weigh,
And our sails we will set.
Good bye, fare you well,
Good bye, fare you well.
The friends we are leaving,
We leave with regret,
Hurrah, my boys, we are homeward bound."

This one was only sung when leaving a foreign port for home.

In the old days before the hydraulic capstans were put on the docks, there would be hundreds of people come down to the Liverpool docks to hear the sailors shanty on their arrival. Another of this class was "Sally Brown:"

"Oh, Sally Brown, I love your daughter,"

The chorus was:

"Wha, hae, row and go.
Oh, Sally Brown, I love your daughter,
I'll spend my money on Sally Brown.
Sally Brown, and a black Maria,
Wha, hae, row and go."

A black Maria is a police wagon, and Jack was nearly as well acquainted with the police as he was with Sally Brown. Sometimes the leader would get personal, perhaps about the cook, or the good times when he got ashore. We would always encourage the shanties, as it helped the work along and made a good feeling among the men.

Whenever they pulled on a rope, even if there were only two of them, one would shout something so they could both pull together, and if a gale was coming on and all hands on deck shortening sail, what with all the different parties shouting, the wind roaring, sails flapping and the captain and officers giving their orders, things for a time would be pretty lively.

COOKS AND STEWARDS

Some of the old sea cooks were a hard lot; I remember one in particular, when I was an officer on a ship. He was a tough old rat, as the saying goes. He never wore shoes at sea, would go back and forth from the galley to the cabins in bare feet, even in freezing weather; said if he put on shoes when the ship was rolling, he would fall down. He had about all his pots and pans named -- usually after one of the twelve apostles -- and the swearing he would do when the ship rolled bad and the dishes would fly, was something that would astonish any apostle.

The cooks and stewards we used to get were something like Peck's Bad Boy. When they were good, they were very, very good, but when they were bad, they were horrid. We once had a Chinese steward who would take a chicken or fowl, turn it inside out, take every bone one of it, turn it back, stuff and bake it, and when it came on the table, you would think the bones were all there, but the carver would be pleased, for his work would be easy. I remember him as one of our best stewards. A lot of bad ones I remember also. Unless the cook was clean with his galley, it would soon get filled with roaches. I have seen them sometimes so thick they would make a rustling noise running around. Sometimes the cook would throw hot water on them and sweep them up, a pint or more at one time.

An aunt of mine was away at sea with her husband, who was the captain. They had a man and his wife for steward and stewardess, both black. The steward would do the work in the galley, and his wife do the work in the cabins. One day my aunt was not feeling well, so she asked the stewardess to get the steward to make her some chicken soup; she also told her she did not want any dinner as she felt kind of sick. After a time the stewardess came into the cabin with the soup and gave it to my aunt who looked at it a minute, passed it back saying, "Take it away, stewardess, don't you see the nasty roach in it?"

Her reply was, "Wall, now, Missus, dat's too bad, I don' tol' Richard he be very sure and skoop out all the cockroaches that got in the soup 'cause the missus am sick and don' want to see them. And now I'll be gol darned if he ain't gone and left one in there."

in order to put up again before getting into the stormy regions of the south. The N. E. Trade winds extend from about 27 north to 6 or 7 north, and from there, nearly down to the line are the doldrums. They are the great bugbear for sailing ships, for the wind comes in squalls, sometimes with heavy rain. Anyone who has never been there can hardly appreciate how hard it rains. By blocking the scuppers one could have a couple of feet of water on deck in a very short time. Here the crew fills up the ship's water tanks, and all the dirty clothes get an extra washing. Ships are sometimes a week and sometimes two weeks getting through the doldrums.

Calms at sea in a sailing ship are worse than any ordinary gale of wind. There is nearly always a swell on and the continual slapping of the sails, the rolling and creaking of the ship -- to know your ship is laying there idle -- and you can do nothing to help it -- is very trying. The captain may be planning what time he will reach port and everything will be very favorable for him until the wind dies out, and it might last for a week or more. Sometimes a little breeze, or cat's paw, as it is called, or the wind right up and down the mast -- more often nothing.

CATCHING SHARKS

Sharks often follow ships but are seldom seen alongside unless there is a calm or a very light wind. So they are caught from the taff-rail. Sometimes just one is following, which is always preceded by a pilot fish, a small striped fish, which keeps not far from the shark's head. At other times there are several around. Sailors don't like to see them, as they say if one follows the ship for long some one is sure to fall overboard, or there will be a death. I have seen a lot of them around the gulf of Mexico, just where the colored waters of the Mississippi flow into the gulf, making a very distinct mark, like a wall -- the dark muddy waters on one side and the clear blue waters of the gulf on the other.

Sailing ships always carry two or three shark hooks which must necessarily be very strong and quite large. They are bated with a piece of pork, usually the rind which is tough and strong. As the shark swims only a few feet under water, it is exciting to see a big one come along, turn over, and take your hook. Then there is something doing in getting him on deck. If it is a big one, several of the men are called aft and a block rigged up. He is only pulled a little way out of water when a rope is passed around the fishing line and a running bowline made, or in other words, a slip line, which is let to drop down over his head and gradually worked down to the tail, and then hauled tight. Without this extra rope it would be impossible to get a shark aboard, for as soon as he is out of the water one or two slats with his tail would break any line or hook. But with a rope around the tail and the men hauling so as to keep it bent up a little, he can not thrash very much. But look out as soon as one is landed on deck! The men who have hold of the tail rope make a run with him off the quarter deck, and get him down on the main deck as quickly as possible, for he will smash things up if left on the quarter deck even a few minutes.

We usually had one or two pigs on board, hens, cats, dogs, pigeons, and sometimes a monkey or two and several parrots. Once I had a goat for its milk, and although she was in everybody's way, no one would hurt her, for sailors are very fond of animals. They are also fond of fresh eggs. We once had to rig up a scheme so they could not steal the eggs. We made a hole in the bottom of the nest so when the egg was laid, it would roll away down in a locker where there was a lock and key.

THE TRADE WINDS

After the ship gets through the calms and into the N.E. trade winds, it is fine weather all the time. Nothing can be more pleasant or delightful than sailing on a ship in the trades. Every sail is set that can possibly draw; the wind, a steady breeze day after day and night after night. Here we would get out our fish lines and if the ship were going fairly fast, would tow them astern or from the jib boom, with a piece of white rag tied to the hooks. Very often we would catch a bonito, a fish weighing perhaps twenty pounds and very pretty, turning many colors after they are on deck, and as long as they are alive. They are very good eating, but sometimes a poisonous fish would be caught. But we always gave the cook one or two silver coins to cook with all doubtful fish, and if the silver turned black then we knew they were not fit to eat. Here we would also get quite a number of flying fish. They would fly on board at night, especially if there was a light. Apparently a light blinded them, for they would always fly towards it, and of course strike a sail or something and then fall on deck.

It is a great sight to see the porpoises playing round a ship. Sometimes they jump high out of the water, landing on their sides with a great splash; at other times they rise about half out of the water, and then go down again, and keep up this rising and sinking for a long time. Sometimes they come in big schools, so the water is all a white foam with them, and make a noise that can be heard a long ways. A few of them will nearly always be playing around a ship and the same ones will follow for days. I have noticed some particular mark on one of them so we knew the same fish followed the ship. They tell the story of one porpoise (which story I would not like to vouch for) that a certain captain noticing a particular one around the ship spoke about it to the mate. So they watched it, and for a week it kept following, sometimes on one side, and sometimes on the other. Then the wind grew much stronger and the ship got going faster. Still the porpoise was there, but they could surely see it was getting thinner, until finally it was left astern with nothing visible but the head, back bone and tail, but the tail kept on wagging.

While going through the trades the crew look over the bad weather sails which came down from aloft, and see that they are all

Discipline on board is given up for a little while. The men gather from all over the ship, and get around that fish with capstan bars, belaying pins, and marlin spikes, and you can be quite sure there will be something going on until they get him killed. In one case I had, the men with the tail line were not careful enough, and the fish threw it off, and before we got him killed, several of the men were hurt and a lot of damage done around the deck.

Nothing will make the men so excited, unless it is whisky. They all hate a shark, for it is the only fish that will eat a man. I once had a big Negro cook who ran aft with his sharp cleaver when the shark's head was brought to the rail, where it is held a few minutes until the men are ready to run with him; and who was in a great way to get his knife into that fish, and seemed to take great delight in driving it into his eyes. Sailors used the shark's back-bone to make canes. It is divided into sections three-quarters of an inch in thickness, and then all the sections are taken apart, scraped and polished, and then strung on an iron rod.

SOUTH OF THE LINE

Everyone is glad when they reach the South East Trades, which range from about the Line or a little north of it, to 27 south.

Here the wind is steady, or should be from the south-east all the time, and it is here we lose the North Star and find the Southern Cross, about the beauty of which we so often read. But I never could see much beauty in it, and one has to imagine the cross as it is not very distinct.

When the ship crosses the Line, there is usually great fun with the men crossing it for the first time. Neptune comes on board, up over the bow, with trident in his hand, and a long flowing beard, and inquires in a gruff voice for the men who come into the southern waters for the first time, for they must all be shaved and ducked into water. The men mix up a lather all over their faces and shave them, or pretend to, and then duck them into water, either a cask full or into a big sail that has been stretched clear of the deck and filled with water. In which case they throw the fellows right over into it.

One time I crossed the line with a big Negro at the wheel who had never been south. We had at that time several Negroes among the crew. Three or four of the white fellows came aft to get him when he appealed to me, for he was very frightened. Said he would fight. "No, Sir, they can't have me. Say, captain, you won't let dem take me away from de wheel." They got him and had a lot of fun, and when it was over, he was the first to start out, as he said, for "de other niggers."

Another time I had a young Welshman for cabin boy. They made him believe Neptune would come during the night; so he had a letter written to his father, which he handed to me, asking if I would please give it to Neptune, as he would probably be asleep when the line was crossed, and he would like his father to get it.

Another time, on a steamer, I took my telescope to pieces and put a hair across the lens, put it together again, and was looking through it when I called a junior engineer to "see the line." Of course I kept hold of the glass, or cautioned him how to hold it so the hair would be parallel with the horizon. He soon found it and was greatly surprised. He had a strong argument in the engineer's mess room over it. The senior engineers would not convince him that there was no line, and it was several days before he would believe I had made a fool of him. But any kind of joke is excusable when crossing the equator.

Once the ship gets into the southern hemisphere the sky usually clears and we have fine weather, which is a great treat after the sultry weather of the doldrums. Usually here one met quite a number of sailing ships homeward bound, but at the time of this trip of which I am writing, their numbers were growing less and less, as the cargo steamer was taking their place.

ROUNDING THE HORN

As we approached the south the days became longer, as their summer is our winter. During the summer months there are only a few hours of darkness off the Horn, but during the winter the days are very short. South America runs down so far south and into the region of strong westerly winds, that most of the time westerly gales are blowing. That of course is head wind when bound around the way we were sailing. After the south east trades are the calms of Capricorn. Here ships take down their fine weather sails and ropes, and put up their bad weather ones, ready for any kind of gale that might come along off the Horn -- somewhat similar to the way we do in the north in the fall, getting things fixed up around the house for winter weather.

It is very hard on everybody with a continuance of bad weather at sea. If a sail is taken in too soon, then the ship is losing distance. But if the sail is not blown away while shortening sail (or perhaps blown away before starting to shorten down) then the sails sometimes carry away yards and some of the masts. Perhaps the crew would be working several hours getting sails fast, and the weather would not be as bad as the captain had expected, so after waiting to make sure of the weather, they would set the sails over again. If the weather came on, with the seas breaking over the ship and decks full of water, the men would be soaked to the skin. Sometimes the seas even washed out the galley, sending pots and pans on deck and overboard, and putting out the cook's fire, so it was luck if one even got a cup of hot coffee.

With a lot of bad weather on, the men get salt water boils on their wrists and arms. Sometimes they are working around with the seas breaking over them and the spray flying for two or three weeks. Then it is very discouraging. I was once three weeks off Cape Horn. Sometimes we would get ahead quite a lot and then it would blow harder and drive us back again, and before we finally got around we had half the men laid up, most of them with boils. Trying to get around Cape Horn with heavy east gales blowing is one of the hardest problems a man can be up against.

Running before bad weather is also trying on the nerves, although we never thought much about them -- hardly knew what they were. Running

before a moderate gale is easy, but a heavy gale is a different story. There are two things that might happen, either of which might mean the loss of the ship and all hands. The sails must be carried on the ship in just the right place so as to make the steering easy, and the helm must be watched very carefully. For if she sheers off her course, she may broach too, which means instead of having the wind aft, it would be on her side. In that case the masts would probably go over the side, and the ship founder.

The other case is the ship pooping a sea. Breaking in over the taff rail, it would probably wash the man away from the wheel (unless he was lashed there), break into the cabins, and perhaps wash away the captain or officer. To avoid this, sufficient sail must be carried on the ship to keep her ahead of the seas, for if she is not going fast enough the seas will roll up on her. In a steamer it is different; running then before a gale the captain would reduce his speed and make much better weather.

ALBATROSS AND WHALES

Watching the albatross flying down here is very interesting. They are always about, but there are more of them with moderate gales than with heavy ones. They are the largest of all sea birds, and are beautiful in flight, with black or brown backs and white breasts, their wings black and tipped with white at the end and along the lower side. It is especially interesting to watch them in flight. I have watched them with the glasses by the hour. They will change their course with a movement of the wing so slight that it can scarcely be seen, indeed in many cases it can not be seen. It is very seldom, when flying that they flap their wings as the smaller birds. Their wings seem large enough to support them in the air without any movement, if there is a breeze blowing. Even in calms they go the same untroubled way, but take sharper curves and sail more at right angles, for in that case their own movement makes the wind. But if they get down they must work to get up. Whereas with a gale blowing all they have to do, apparently, is to lower one wing and lift the other, and away they go sailing through the air.

In moderate weather the crew catch them with hook and line by fastening some kind of bait on the hook and letting it tow astern. When the birds see it they drop down after it. But they are very shrewd. They appear to see the hook and unless they are very hungry it is quite a trick to catch them. They will nibble the bait off nearly as fast as it is put on. But when one is caught there is a commotion on deck, for they are savage. After the hook is taken out of the mouth, a line is usually fastened to one of their legs, and tied to the rail. I saw a big one loose on deck once, and he had complete charge until he was secured. He bit one or two of the men quite badly. As they are web-footed they can not fly from the deck; there is not room to run and flap their wings before flight.

The smaller ones are very good eating for a change from salt provisions. They taste fishy, but a good deal of the taste can be taken away if several onions are put inside of them after they are killed, and they are kept for one or two days. The onions seem to absorb the taste.

We once caught an albatross that measured fourteen feet from tip of wing to tip. He stood on deck three feet high and was about eighteen inches across the back, with head in proportion and with large eyes.

There is a story that the souls of old sailors who die off the Horn go into one of these birds.

The Cape pigeon is a bird about the size of our northern pigeon, but much prettier. Ships meet them when bound around the Horn -- before they meet the albatross, and they go up the west coast faster. They are beautifully marked with black and white spots. I have never seen pigeons anywhere as beautiful as they are off the Horn.

In the southern waters are the whales. Sometimes there are four or five of them playing around. It is a great sight to see them. They will rise out of the water quite a long way showing their huge bodies, and then dive down, throwing up their tail which comes down with a splash and a loud noise. I never happened to see a fight between a whale, thrasher and a sword fish, but one evening I heard them, and such a noise of splashing and pounding! The sword fish pierces the whale from underneath and makes it rise to the surface; then the thrasher beats him from above and that drives him down again; and so they keep it up until the poor old whale is played out and killed. The swordfish is about the size of a shark, about six or eight feet long, and has great strength with its sword. Cases have been known where the sword has gone right through a ship's planking and broken off there. The thrasher, when engaged in combat with the swordfish, waits until it rises to the surface, when he leaps out of the water and brings his tail, with a swinging blow, upon the back and head of his enemy. A fight lasts from one to two hours.

VOYAGE END AND PAYING OFF

Everyone, of course, was anxious to get into port after a long voyage. One might meet a relative or dear friend; you could never tell who would be there; and to get a change of food from salt meat and canned goods to fresh meat and vegetables. Also to have grass to walk on after the wooden decks was all very enticing. No wonder a sailor usually rolls when he walks, for the continual rolling of the ship gets to be second nature to him. I knew a little girl who learned to walk on board a sailing ship and when she came ashore to a hotel, it was very funny to watch her. She would take a step and then apparently wait, with her foot up, for the floor to roll so she could steady herself before taking another step. She was in the hotel quite a number of days before she would walk like other children.

It was sometimes as bad to get clear of the men as it was to get them. When the ship returned to a home port the crew had to be paid off, either before the consul or in the shipping office. After the ship was made fast to the quay and the decks cleared up, they would go ashore with their belongings and on the first or second day we would pay them off. By that time they had been pretty well filled up with liquor and some of them would have all kinds of grievances to settle.

I remember one crew in particular I was paying off that I had a lot of trouble with. It was before the consul, and of course, he must

PART IV

A BRIEF BIOGRAPHY OF CAPTAIN ALFRED H. DURKEE

Captain Alfred H. Durkee was born in Carleton, Nova Scotia, December 9, 1860, the son of James and Elizabeth (Dennis) Durkee, both born in Nova Scotia.

At the age of 17 he turned to the sea for a career and appears to have been second mate in sailing ships at the age of 21, and first mate at the age of 23.

He commanded three square riggers, the wooden Nova Scotiamen "Thomas Perry" and "Abbie S. Hart" of Yarmouth, and the steel ship "Balclutha" of Glasgow. Subsequently he went into steam, commanding the "Baron Glamis" and the "Baron Cawdor" for Hugh Hogarth & Sons of Glasgow, from 1901 to 1904, and the "Vortigern" for R. McMillan (original owner of the "Balclutha") from 1904 until 1908.

In 1908, after 30 years of seafaring, Captain Durkee retired from the sea and engaged in the manufacturing business at Haverhill, Massachusetts. With his brother, Evelyn E. Durkee, he manufactured shoe counters; a few years later, reorganizing the business as the Durkee Counter Co. under his sole proprietorship. Besides making counters, he fabricated soles and tops for both men's and women's shoes. Captain Durkee was a successful businessman; his secretary, Mrs. Hazel S. Snell of Haverhill, recalls his methods in these words (December, 1954):

"When I first went to work for Cap'n. Durkee, I had a time familiarizing myself with his shipboard phrases, which he used occasionally. Many times, out in the factory, I'd heard him boom at the men, 'Bear a hand there' ... 'lay forward' ... and sometimes more emphatic phrases!"

"The characteristics which made him a good sea captain were apparent in his role as an excellent businessman. He was respected, successful and resourceful. He was a stickler for duty and discipline, had an exceptional flair for split-second decisions; a rigid demand and high regard for loyalty.

Captain Durkee was a popular after-dinner speaker and guest at luncheon clubs in his part of New England, and the foregoing narratives were set down on paper at different times during the course of his speaking career.

Captain Durkee retired in 1933 and died five years later at the age of 78.

be careful to see that the men get justice, and if they have been abused on the voyage, he must see that the officers get punished. The men filed by sullenly. One, a German, who had a few drinks in, was being paid his money in British sovereigns, as usual. One of the coins kind of rattled on the table, when he said, "Jump, you beggar, jump; many is the time I had to jump for ye!" Another old sailor, a regular trouble-maker, had some fancied grievances with the mate. He was half-tight, and the consul was trying to smooth things over with him, when one of the other sailors said, "Let's take it to law." But this chap says, "What is the use of taking it to law, when the court is held in Hell and the devil is the judge?"

THE TRAVELS OF A SHIPMASTER'S WIFE

by Mrs. Alice M. Durkee
wife of Captain A. H. Durkee

At the early age of five, Miss Alice M. McCormack left the home of her parents to live with her great-uncle in Tusket, Nova Scotia. The uncle was a shipbuilder. While in Tusket she met the young shipmaster, Captain Durkee, who had come to Tusket to visit friends. This meeting and later acquaintances led to their marriage on May 10, 1888. The couple went to live with the Captain's family in Carleton. In December of the same year they sailed for Boston by steamer.

Mrs. Durkee stayed with an aunt in Beverly while the Captain, becoming master of the bark "Thomas Perry" sailed from New York to England. Mrs. Durkee joined him in Liverpool, after giving birth to a daughter, Edith, who died as an infant without the Captain's seeing his first child.

The Captain and his wife went to sea for about five years, making voyages to South America, around Cape Horn, North America, and Germany. In Hamburg, Germany, Mrs. Durkee decided to stay with friends while the Captain went first to New York, thence to England, and in England he became master of the "Balclutha", a full rigged ship. Mrs. Durkee journeyed to Cardiff, Wales, to join him. Due to illness she could not accompany him on his next voyage. After remaining for six months in Cardiff, she returned to Hamburg for a year at the end of which she joined her husband in Antwerp, Belgium (probably in January, 1896).

Together they voyaged in the "Balclutha" to San Francisco; thence to London via Cape Horn. From England Mrs. Durkee returned to Hamburg in June, and left for Tusket to visit her family in November. After visiting in Tusket she boarded a French liner going to Havre from New York. Just as the ship was leaving the dock, the announcement was made of the beginning of the Spanish-American War. In Havre she was met by the Captain and together they sailed to Wales,* South America, and thence to Calcutta. With a cargo of gunny bags they headed for Frisco. While in the Indian Ocean, off the coast of Australia, a daughter was born. (In anticipation of this event an Indian mid-wife joined the ship at Calcutta.) The little child was named Inda Frances. ** Three months later, on arriving in San Francisco, the ship was sold and the family went to Tusket.

Leaving his family in Tusket, the young master left for England with the desire to become acquainted with steamers. He became chief officer on the Red Star Line, which made a triangle run -- Belgium, United States, and England. Later he became master again in, this time, the steamer "Baron Glamis".

* Probably Greenock, Scotland

** Born in Latitude 37° S, 84° E., and named for the Indian Ocean and San Francisco, where the ship was bound.

Mrs. Durkee remained in Tusket until Inda was one year old, then went to live with Captain Durkee's brother in Haverhill, Massachusetts (Columbus Avenue). Later they went to Glasgow, Scotland, to join the Captain -- thence the family made a voyage to Manila via the Suez Canal, then to Antwerp, where mother and daughter returned to Tusket.

Later they rejoined the Captain in England (Inda was three years old). The Captain had become master of the "Baron Cawdor". They voyaged to Alexandria, Egypt, thence to Batoum, Russia. Mrs. Durkee and Inda returned to Tusket, while the Captain made a trip to Japan. While in Japan the ship was sold to the Japanese (just before the Russian-Japanese War), and the Captain returned to Tusket. Mrs. Durkee had in the meantime returned to Haverhill, but joined the Captain in Carleton, Nova Scotia.

The family later sailed from Boston to England to pick up the steamer "Vortigern". After repairs were made they sailed for Calcutta, then to Sumatra (Dutch East Indies), went to the island of Mauritius in the Pacific, to ports on the African coast, and finally back to Calcutta, then England. Mrs. Durkee sent Inda from Liverpool to Boston (Inda to live with an uncle in Haverhill). She made the journey on the "Catalonia" under the watchful eyes of the master and chief-stewardess. (Inda was only eight years old.)

Captain and Mrs. Durkee went to Lourenco Marques, a port in South Africa (cargo coal), thence to Hull in England, and from England to Central America, thence to Norfolk, Va., U.S.A. Mrs. Durkee returned to Haverhill, the Captain continuing. Later she accompanied him to the isle of St. Thomas (Danish possession). The Captain went next to Scotland. That event marked the end of a thirty year period which the master had spent on the sea. He returned in 1909 to Haverhill, where he went into the counter business with his brother. A favorite saying of the Captain's was, "Thirty years at sea, thirty years in business."

BALCLUTHA
LIFE AT SEA

The following illustrations and captions are taken from the book Sail Ho and were drawn by Gordon Grant (See History of the Balclutha section) in 1925 while on board the Star of Alaska. From the Library, National Maritime Museum, San Francisco.

SAIL HO !



WIND JAMMER SKETCHES
ALOW and ALOFT

by

GORDON GRANT

•WILLIAM FARQUHAR PAYSON•

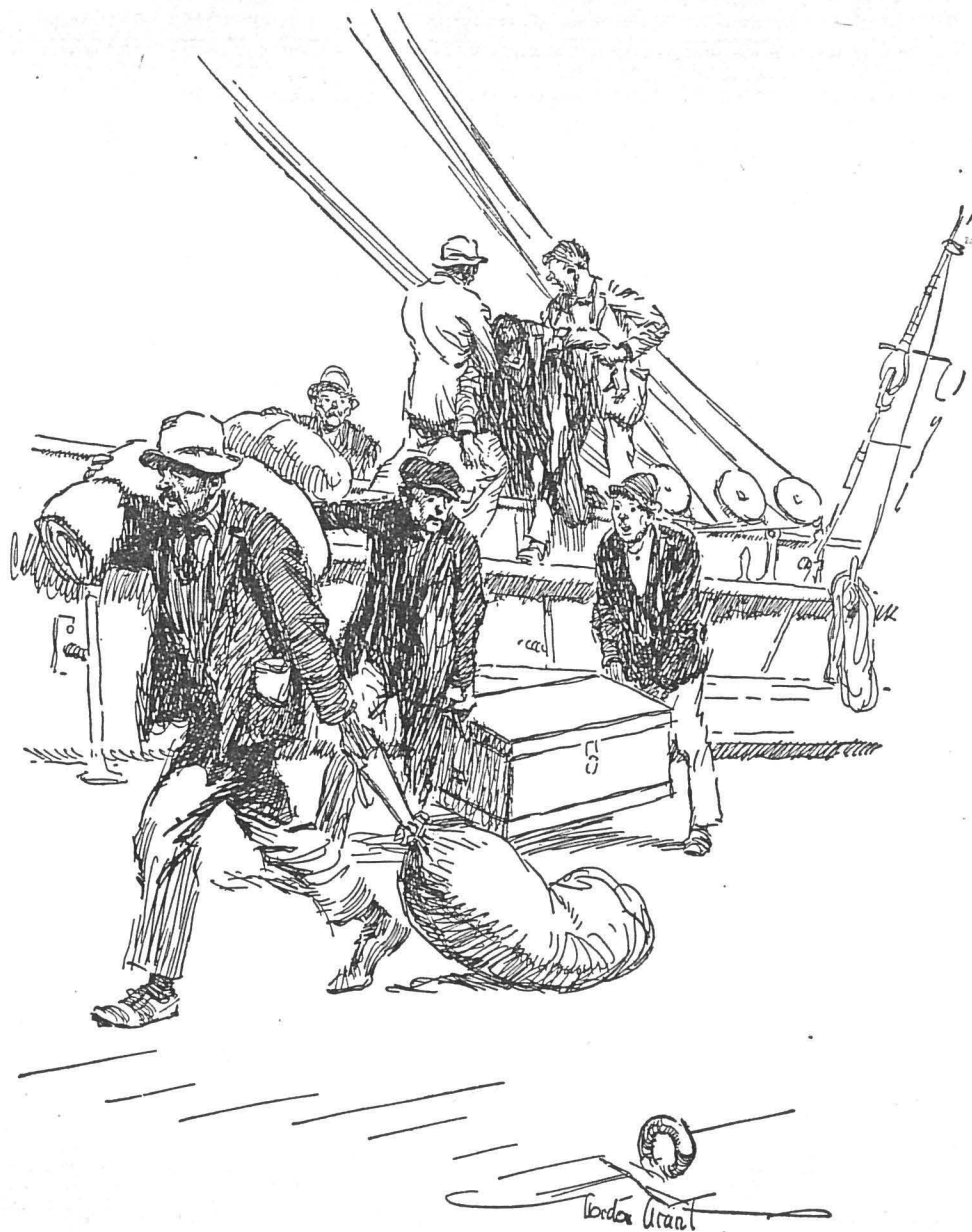
New York

THE CREW COMES ABOARD

The boarding house master brings out his "round up" in a shore boat; and they tumble or are carried aboard according to the degree of their drunken stupor.

He collects his commission, having already emptied the pockets of his victims, and pulls ashore.

The mates come "for'ard" to look over the sorry array and ponder on how they will ever get sail on the ship.



K9. 49,341n

WEIGHING ANCHOR

Weighing anchor means severing the last contact with shore.

Usually, with a new crew, a mixed assemblage of salty ne'er-do-wells, hard shell seamen, wharf rats and landsmen, some of whom have been thrown aboard by the boarding house masters in a state of alcoholic stupor, weighing anchor was not a cheerful affair.

So the chantey man lifts his voice in one of the capstan chanteys to put spirit into the men.

A couple of verses usually serves the purpose, and soon the cable is "up and down" to a full chorus.

Then it's "Hey! heave pawl!—Hey! heave and bust her!"—the hook is broken out of the mud and ship is free again.



K9.40,342u

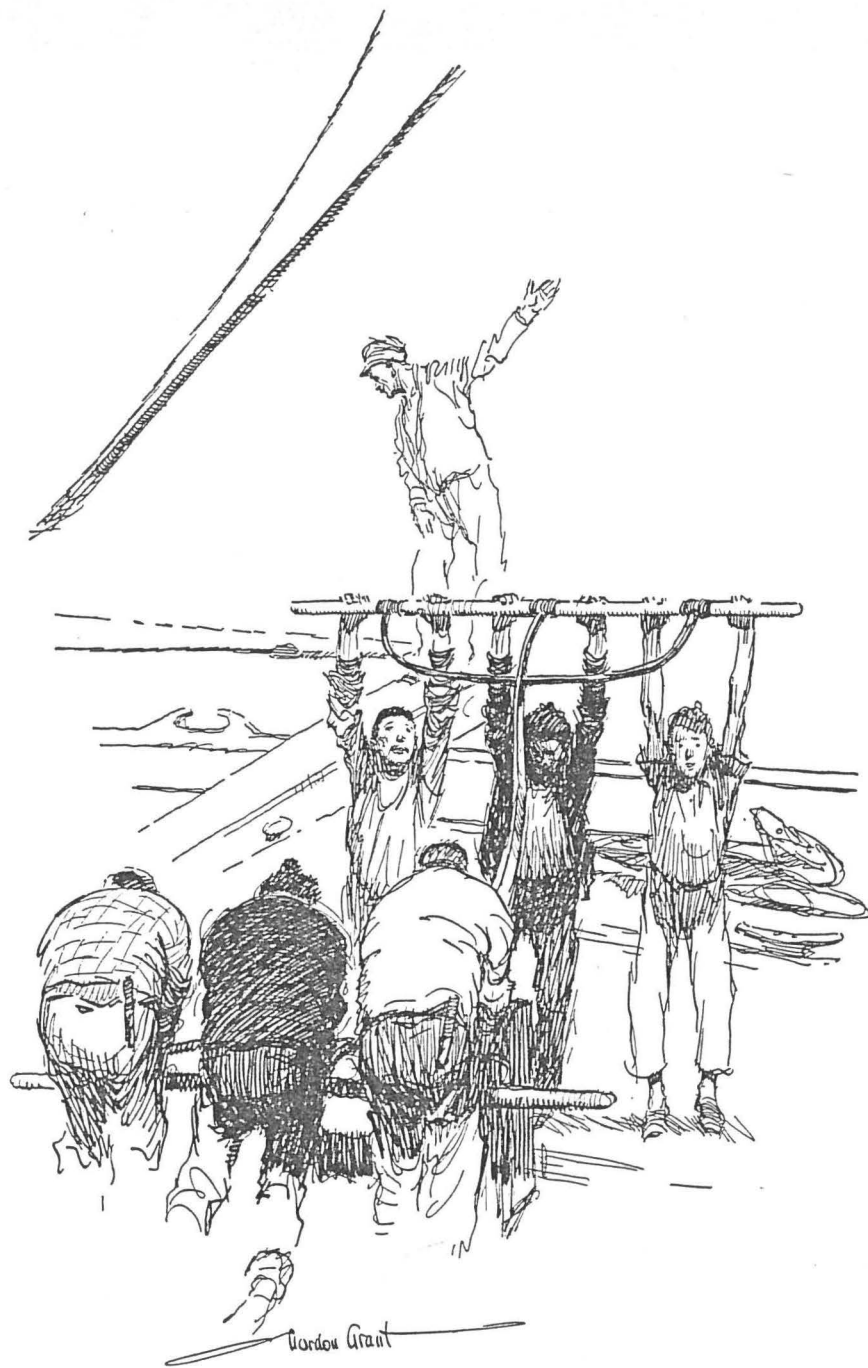
WEIGHING ANCHOR—OLD STYLE

Before the introduction of the "patent" windlass, operated by the capstan on the topgallant foc's'le, all sailing vessels of any size had the ancient "log" or "barrel" windlass.

This was turned by ratchets connected to the "brake handles" and back-breaking work it made.

"Some say we're bound for Liverpool,
Some say we're bound for France,
I think we're bound for Frisco, boys,
To give the girls a chance.

.
Heave away! my bully boys;
Ho! Heave and bust her!
Hang your beef, my bully boys;
Ho! Heave and bust her!"

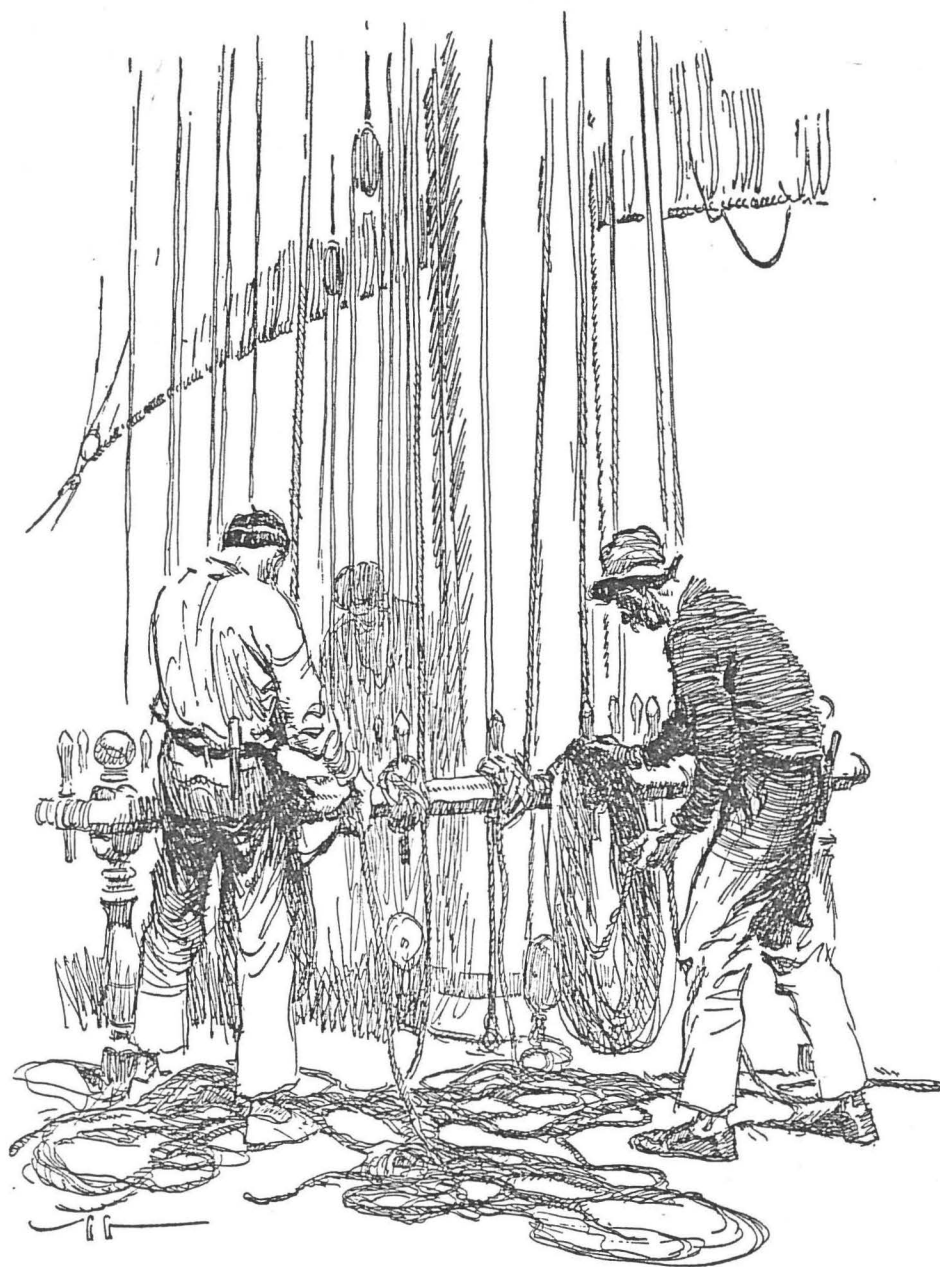


K9. 40, 343n

COILING DOWN

During the process of setting sail, all halliards, buntlines, clewlines, tacks, and sheets were thrown off the pins, and by the time the ship was under way the deck was a welter of running gear.

At the last "Belay that!" from the mate every man who was not otherwise engaged, turned to, coiling down, each coil being as like its neighbour as the length of rope would permit. "Shipshape and Blackwall fashion."



59,49344n

CHOOSING WATCHES

As soon as the ship was on her course and gear coiled down, the crew was mustered aft.

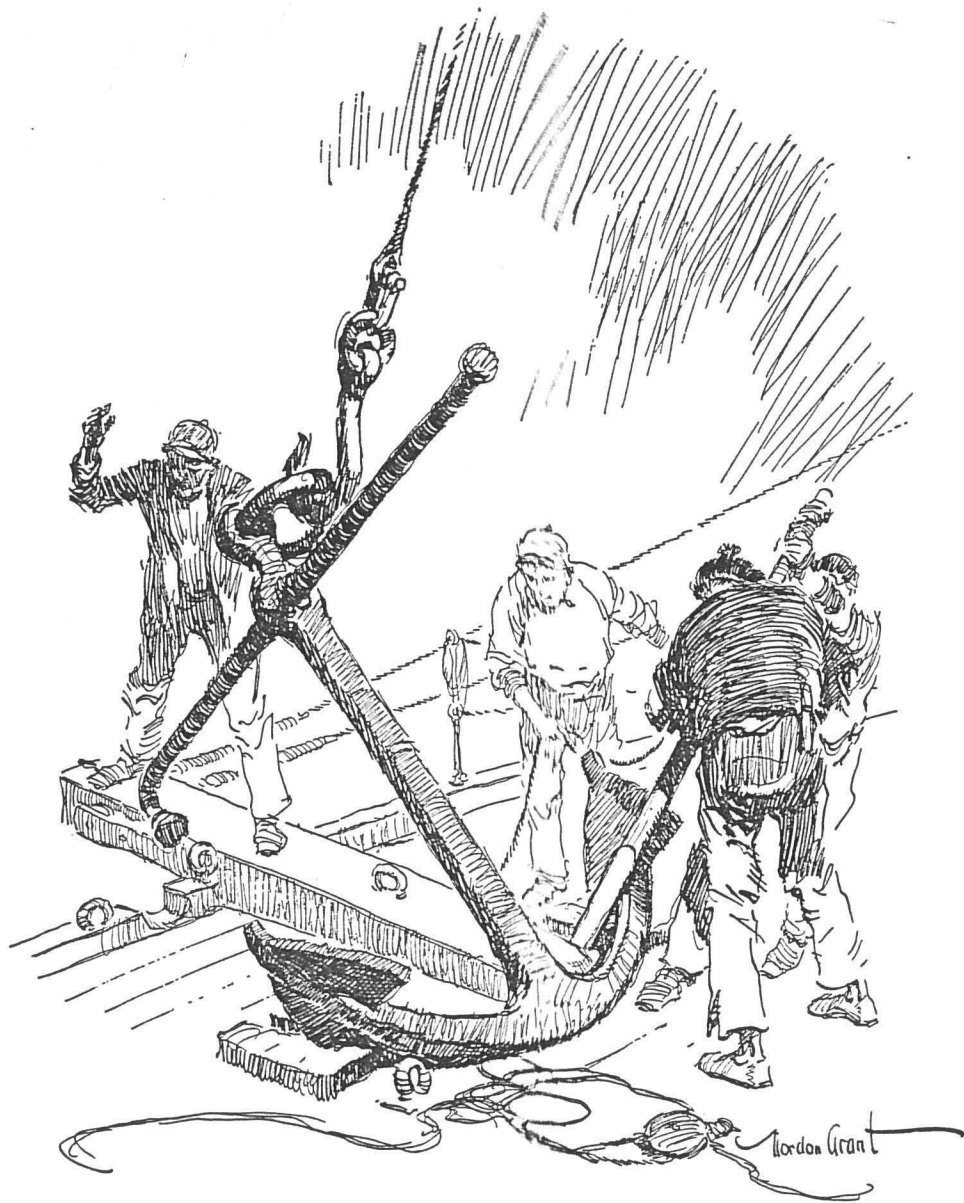
The First and Second Mates alternately chose men for their watches—the First, the Port Watch—the Second, the Starboard.



Gordon Grant

STOWING THE ANCHORS

As soon as sail was set and the ship on her course the anchors were brought from the hawse pipe to the cat-head by means of the "cat fall," or "fished" by the "fish tackle" onto the foc's'le deck. The cable was disconnected, the anchors stowed in their chocks, and securely lashed for the voyage.



J.9.40,345n

THE STOWAWAY

Slipping aboard during loading, and hiding in the forepeak, or some other black hole, he was finally discovered or driven out by hunger and thirst. Hailed aft, he was given a dressing down by the captain and sent ashore with the pilot or on the tug. If it was too late for this he was signed on, to help the steward in the cabin or sent for'ard to the hard school before the mast.



SWAYING OFF

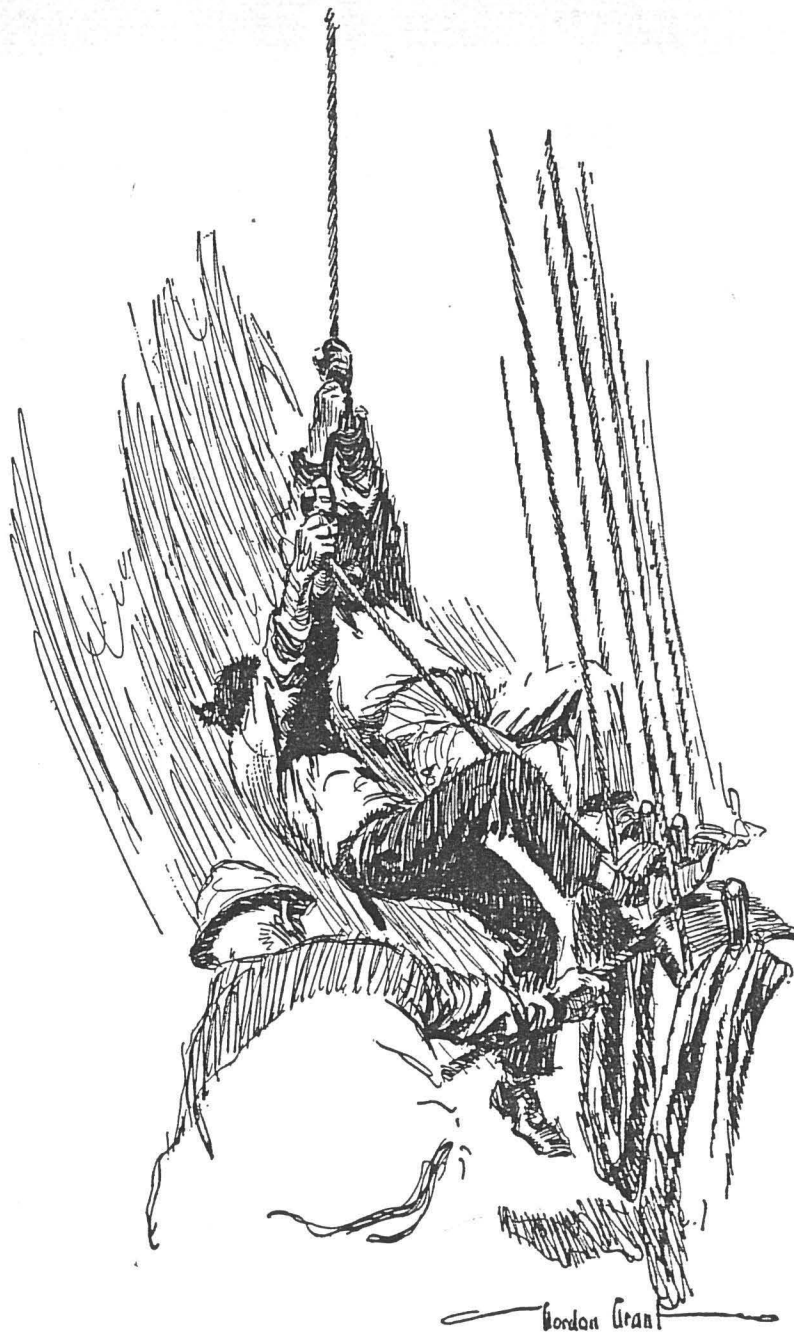
They have set the main topgallant staysail.

In order to stretch it taut along the stay one man takes a turn under the belaying pin; the other two stand on the fife rail, grasp the halliards, and "sway off," putting all their weight into it. As they bend their knees, the slack is taken up on the pin and the process repeated.

"Ho, Molly come down,
Come down with your pretty posey,
Come down with your cheeks so rosy.
Ho, Molly, come down.
He O! He O!"

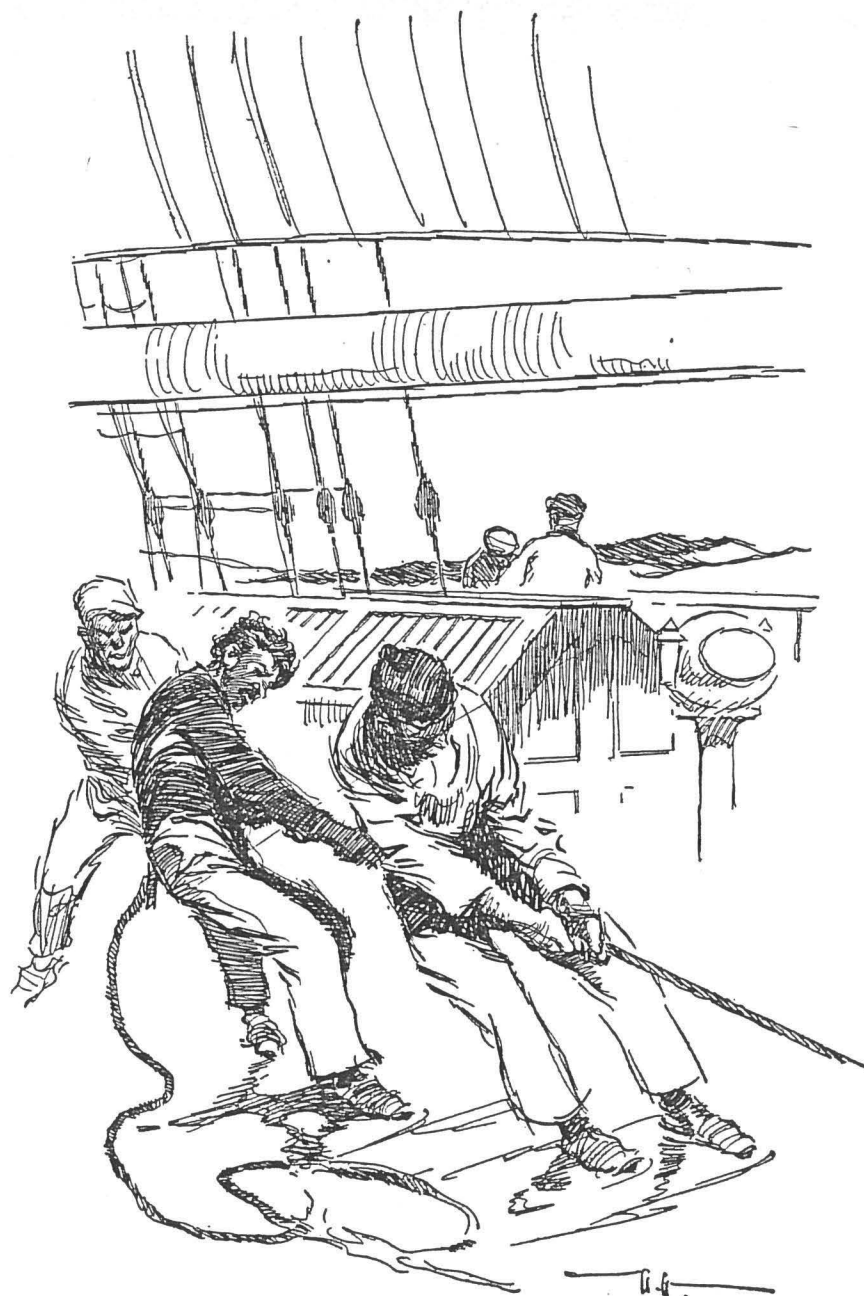
"Belay that!"

"Belay, Sir."

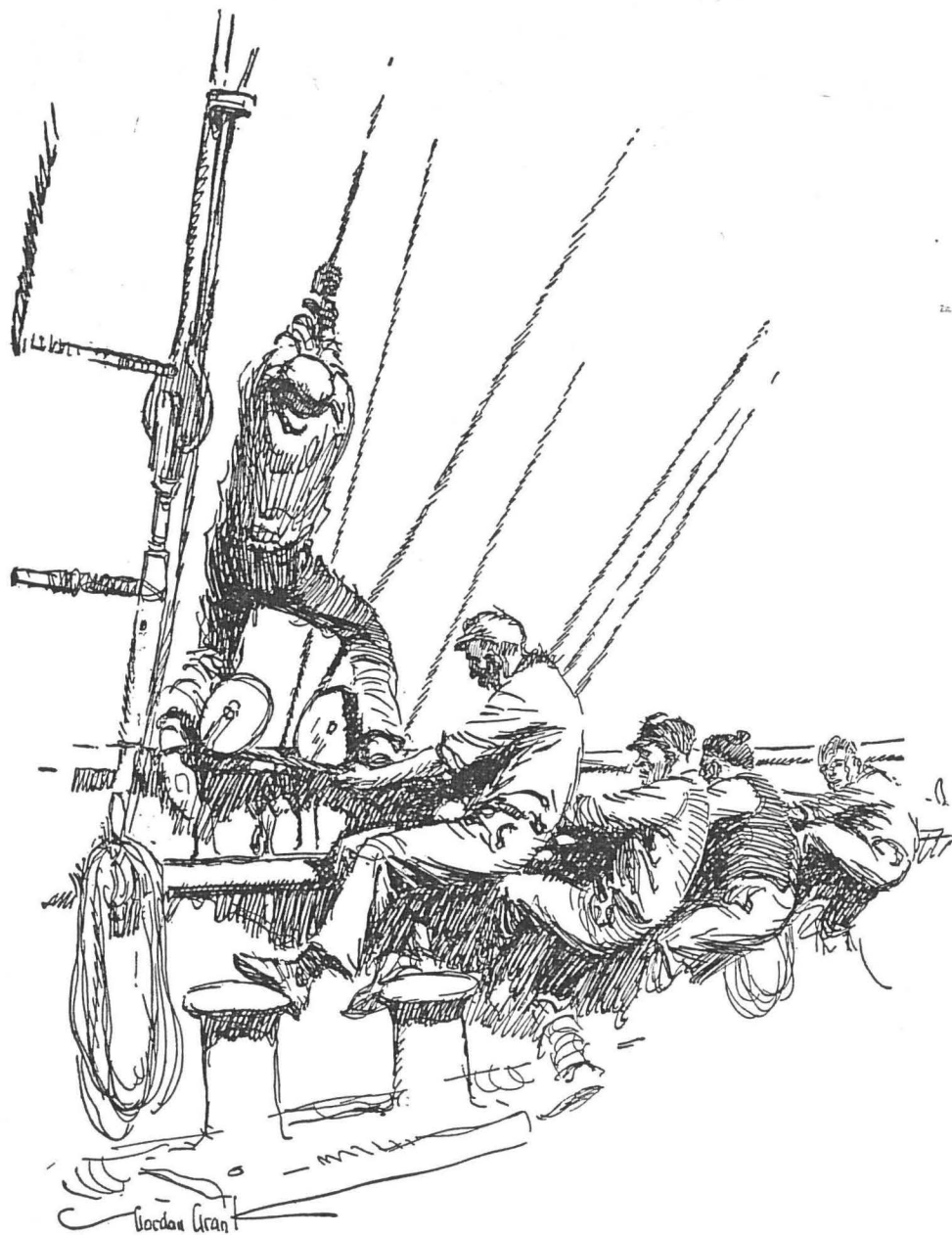


V71.40,346n

A PULL ON THE SPANKER SHEET



A PULL ON THE LEE FORE BRACES



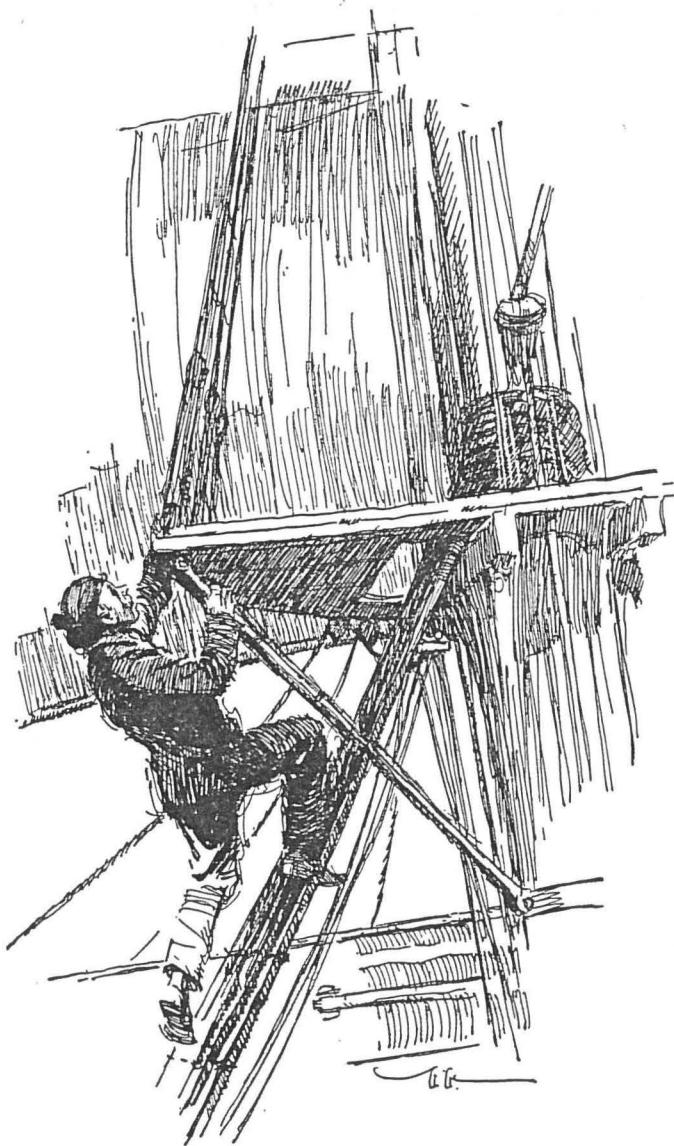
J9. 40, 347n

THE FUTTOCK SHROUDS

To reach the topmast rigging the sailor must needs climb over the "top" by the futtock shrouds.

In naval vessels the hole through which the lower shrouds passed was very large, and was known as the "lubbers' hole" because young or inexperienced sailors, on their first trip aloft, preferred going through it to scrambling out on the futtocks.

Woe betide him who was caught, and few attempted it twice.



BOARDING THE FORE TACK

The ship is close hauled on the starboard tack. The chain tack of the foresail is brought to the open sheave on the cat-head and thence to the capstan.

While three men heave it down, a fourth takes up the expended chain and "surges" the turns into the waist of the capstan.



Jordan Grant

59.40,398n

SLUSHING DOWN

That the parrels of the royal, topgallant, and upper topsail yards should run easily on the mast it was necessary to grease them with a mixture of tallow and galley fat, know as "slush."

.
"Hello, aloft!"

"Aye, aye, Sir."

"No holidays there!"

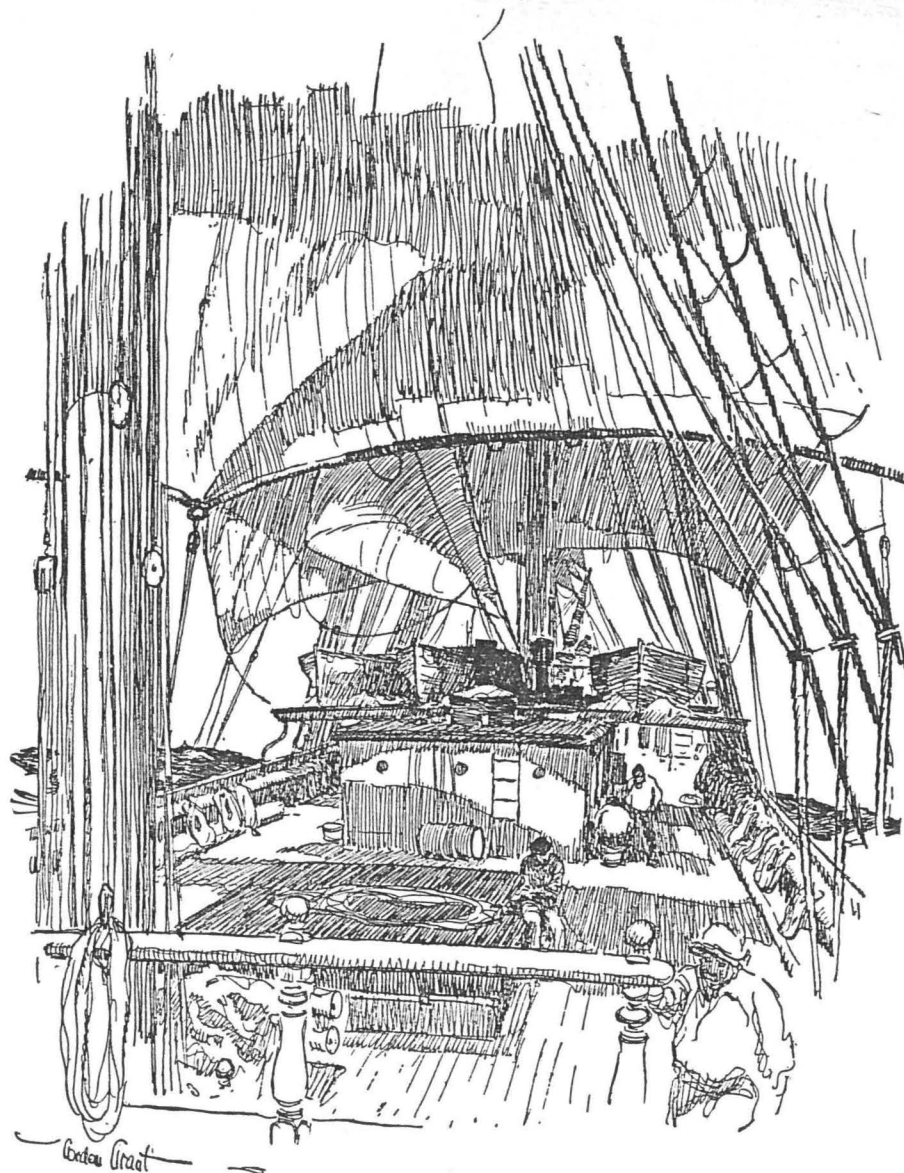
"Aye, aye, Sir."



V71. 40,349w

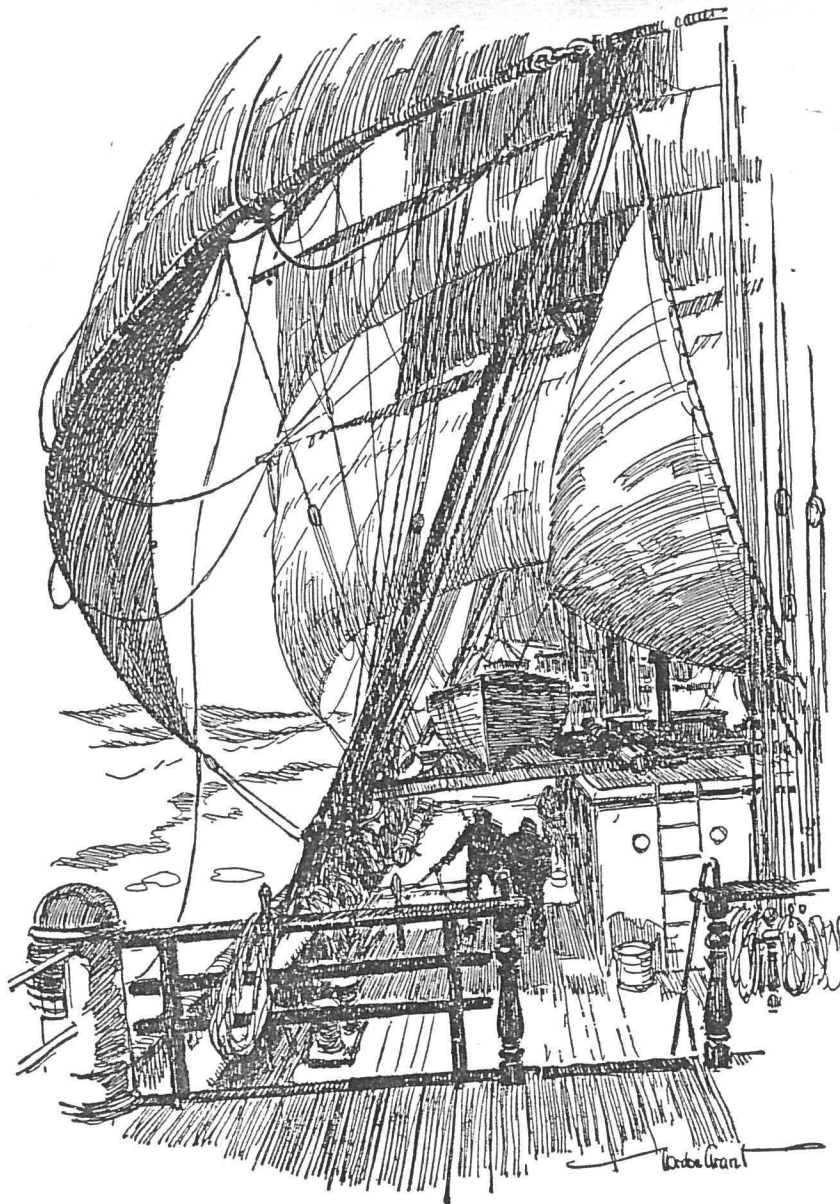
LOOKING FORWARD

From the poop of "Star of Alaska."



LOOKING AFT

From the foc's'le head of "Star of Alaska."



THE SLOP CHEST

Many sailors came, or were thrown aboard, with nothing but the clothes on their backs, so were obliged to draw on the ship's slop chest; usually a sorry collection of cheap shoddy.

Poor Bill had to take what he could get. He paid well for it out of his scanty wages; and with this and his tobacco and his gambling many a man left the ship no better off than when he signed on.



U. G.

U61.40,350w

THE BUCKO MATE

"Spare the rope's end and spoil the sailor" was the motto of many a hard case old skipper.

The 'bucko mate,' who spared not the belaying pin, or any other weapon which came first to hand, gave many a vessel the reputation of being what the man before the mast called a "Hell Ship."



J9.40, 351n

THE HARNESS CASK

The salt meat was put aboard in large casks and was so impregnated with saltpeter that it was quite unfit for food until it had been soaked for days in sea water.

This was done in the "harness casks." Usually two of these graced the quarter deck, ornate affairs of teak or oak, bound with heavy brass hoops.

They took their name from the old supposition that the "old horse" it contained was cut up, harness and all.

Old horse! old horse! what brought you here?
From Sacarap' to Portland pier
I carted stone for many a year.
I labored long and well, alack,
'Till I fell down and broke my back.
They picked me up with sore abuse
And salted me down for sailors' use.
The sailors they do me despise,
They pick me up and damn my eyes,
They eat my flesh and gnaw my bones
And throw the rest to Davy Jones.



J9. 40,352u

WORDS WITH THE COOK

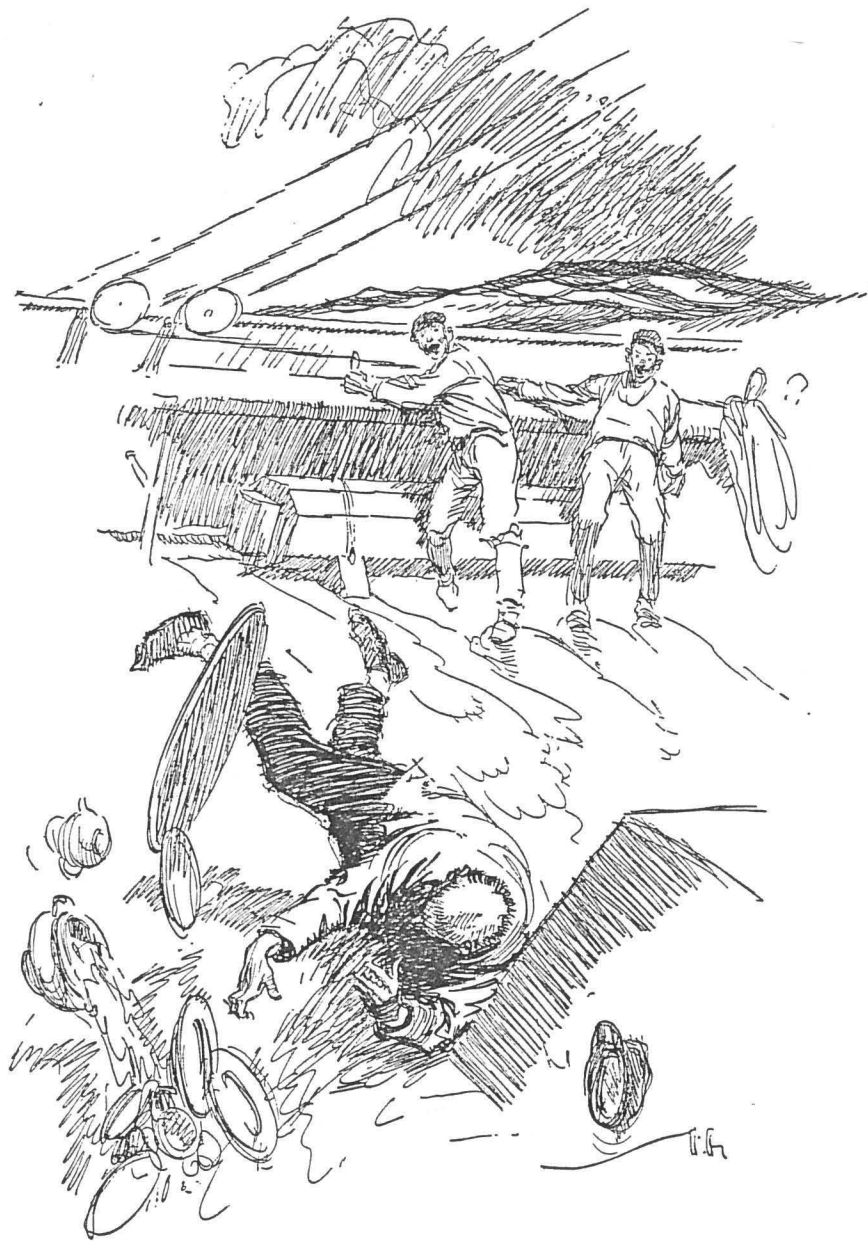
"Take your complaints aft, young fella. Maybe the old man can tell you how to make chicken fricassee out of salt horse."



J9. 40,353n

THE STEWARD IN DIFFICULTIES

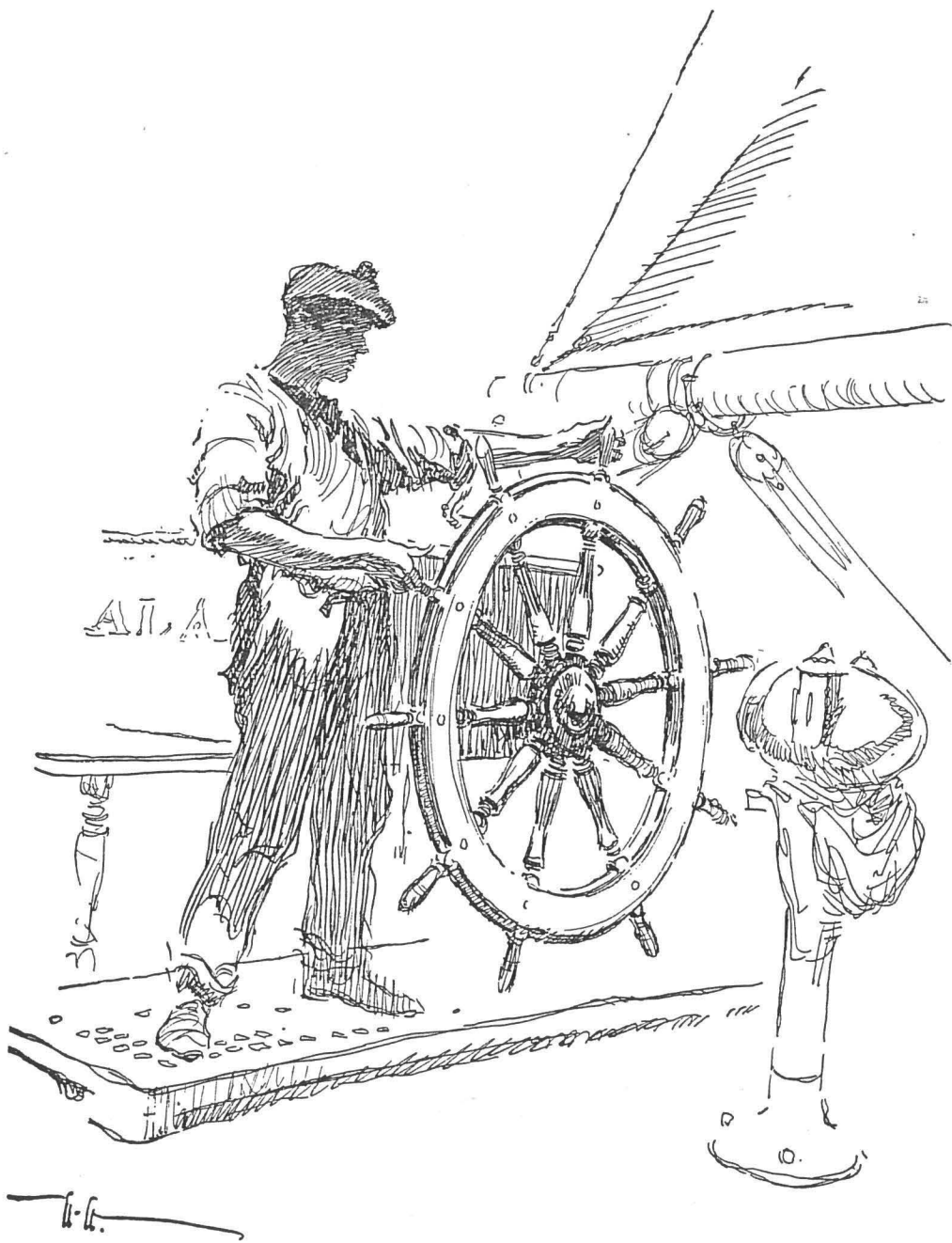
"There goes the skipper's dinner!"



K9, 40, 354 n

FLYING FISH WEATHER

So called because the weather is fine, the sun is shining, schools of flying fish skitter over the gleaming sea, and there is nothing for the steersman to do but loll by the wheel and give her an occasional "spoke or two."



J9.40,355n

THE SKIPPER TAKES A SIGHT

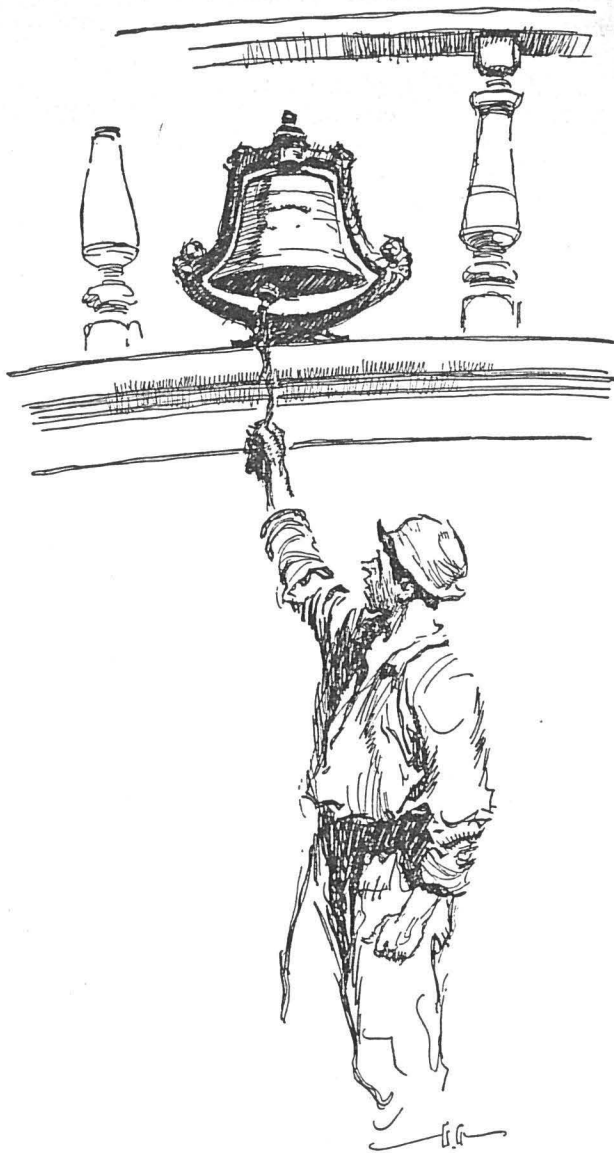
The 'fore 'mast hand's acquaintance with the science of navigation was confined to his knowledge that every day at noon, when the sun was visible, the captain took an observation with his sextant, and by some mysterious calculations and books and chronometers worked out the ship's position.



J9.40,356 n

EIGHT BELLS

The man at the wheel, in addition to steering the ship, watched the clock through the cabin skylight. He struck the hours and half hours on the bell on the wheel box, and the strokes were repeated on the big foc's'le bell.



J9. 41, 517n

HEAVING THE LOG

A line, to which markers or "knots" were attached at intervals, was wound on the reel which one man holds over his head.

To the end of this line was bent a canvas bucket or drag.

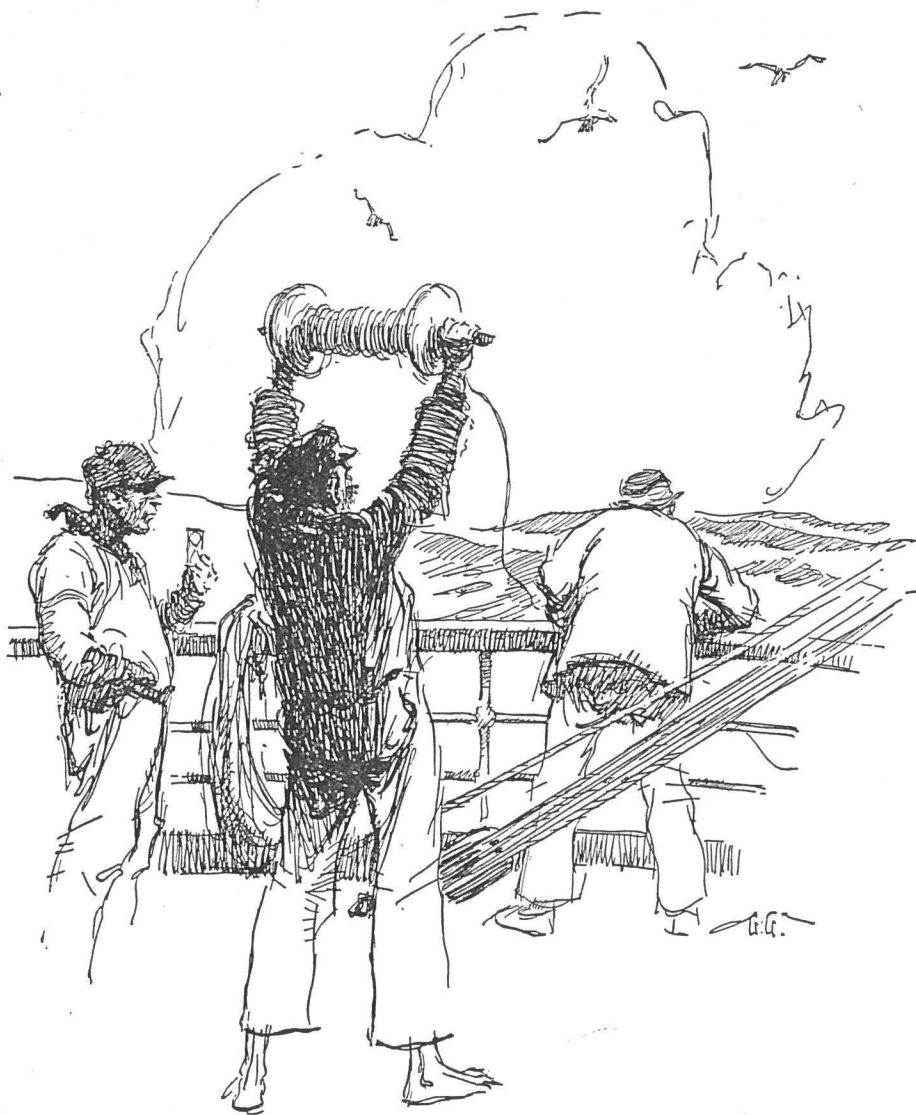
The second man holds in his hand a one-minute sand-glass.

The officer in charge of the operation lowers the drag over the taffrail and as soon as it fills with water he sings out "Turn!"

The sand glass is turned and the line runs out.

When the minute is up the man with the glass calls "Stop" and the line is hauled in.

By counting the markers as they come over the rail the speed of the ship is measured by "so many knots."



J9. 40,357w

THE SEA LAWYER

Almost every crew had its agitator—a malcontent who found no good in anything: who urged the men to demand this and that from the captain, but, like the Duke of Plazatorro, led his regiment from behind. He was never bold enough to take his own grievances aft and his ravings soon fell on deaf ears.

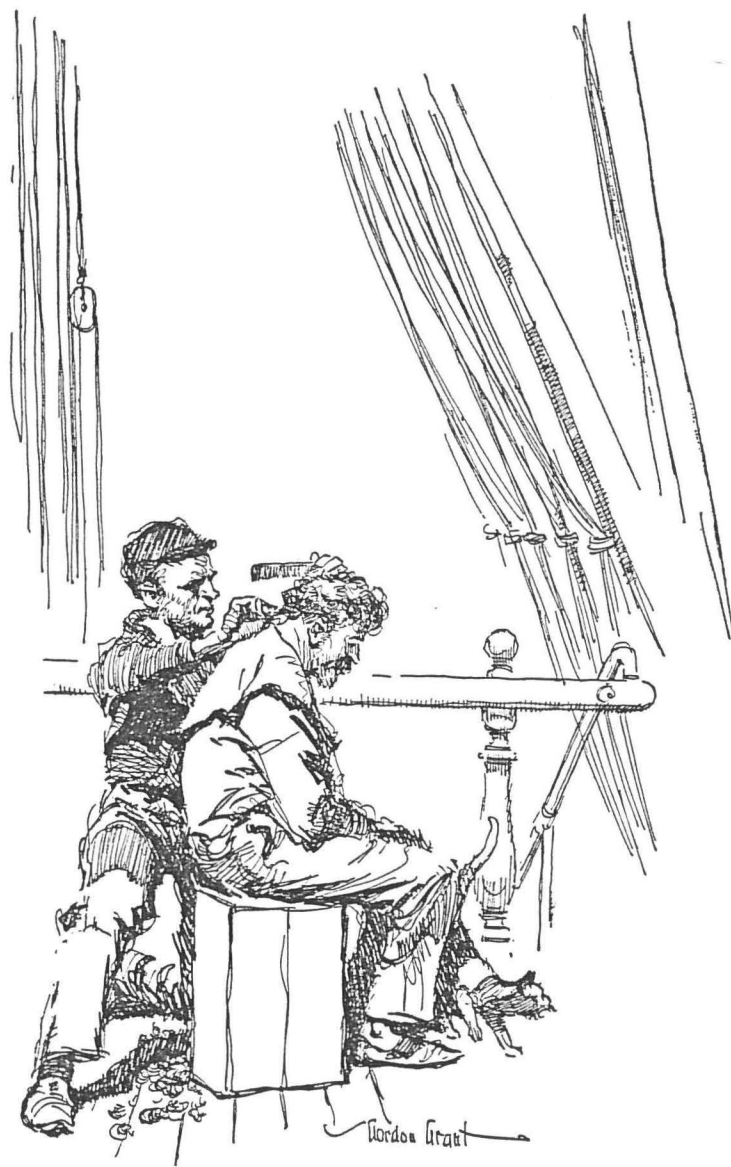


UGI. 40,358 n

THE SKIPPER HAS A HAIR CUT

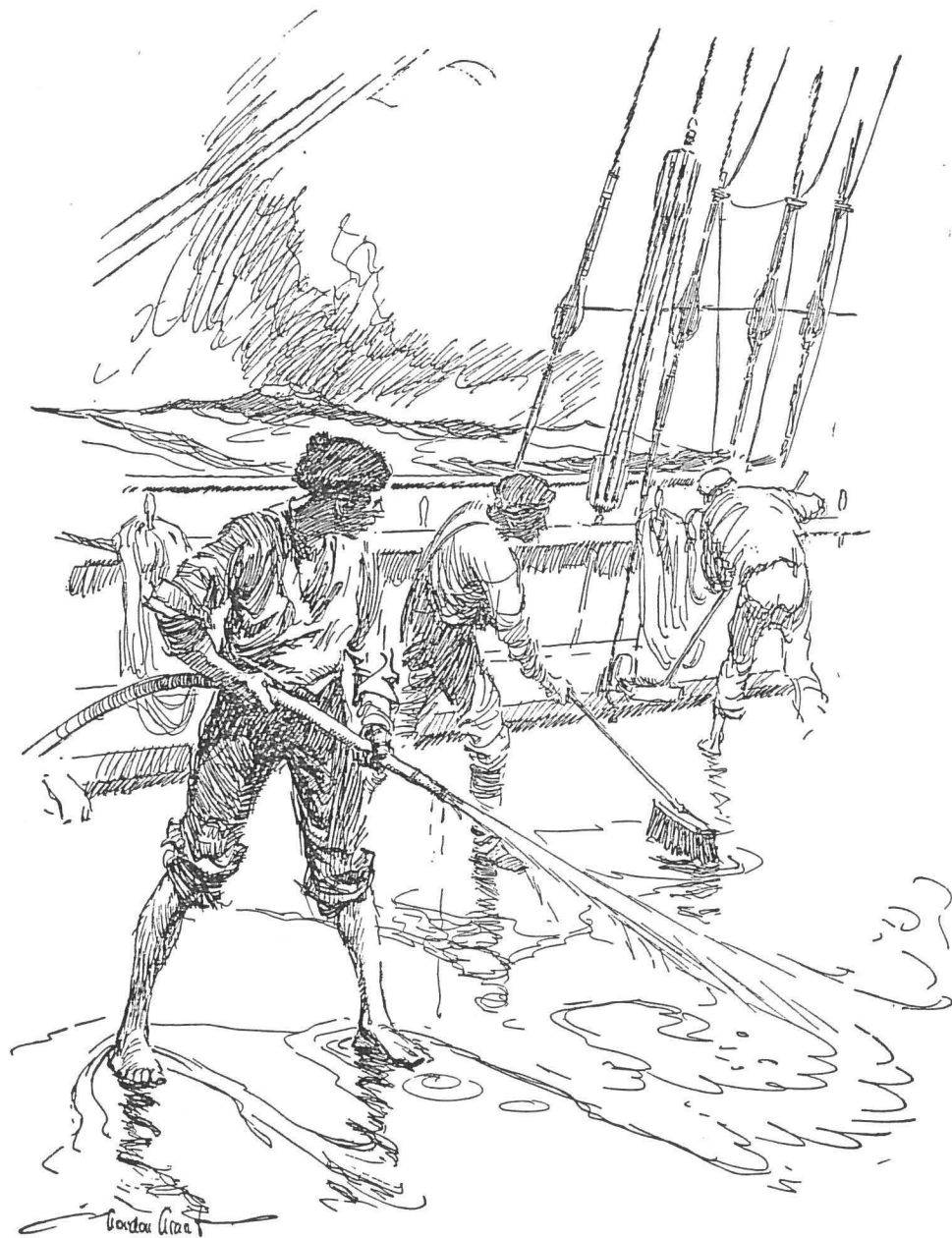
Among such a mixed assemblage as a ship's crew there was seldom a job that some man could not do, and do fairly well.

Anyone handy with the barber's scissors found customers who paid in tobacco for his services.



WASHING DOWN DECKS

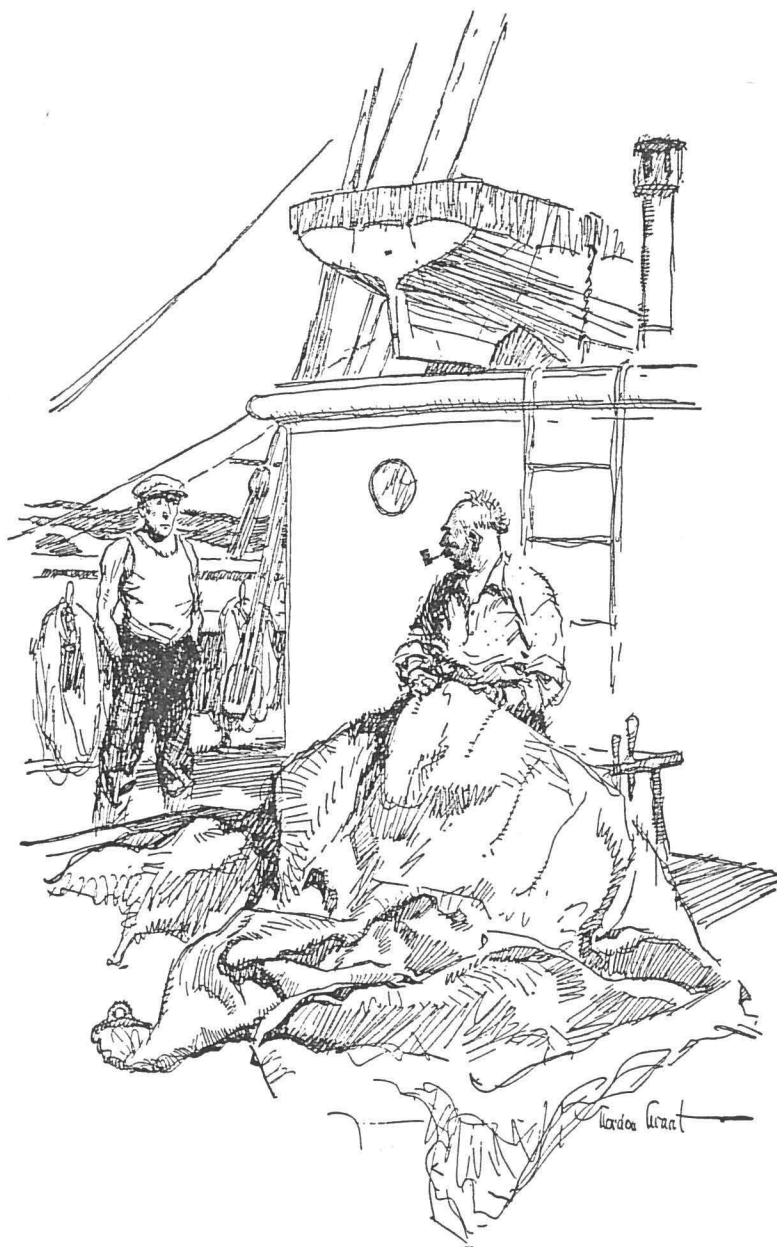
Every morning before the watch was relieved for breakfast the sea pump was rigged, and, with broom and squeegee, the decks were given a thorough scrubbing.



THE SAILMAKER

The sailmaker, or as he was called, "Sails," stood no watch, and with "Chips," the carpenter and "Doctor," the cook, had "all night in."

In the tropics the ship used her oldest and much patched canvas, and on fine days, during the run down to the Horn, the sailmaker brought his bench and kit up onto the main hatch where he overhauled his best canvas in preparation for the tussle with the elements in the beat around "Old Cape Stiff."



J9. 41,543 n1

A DOG-WATCH CONCERT

In order that the crew would not have the same time "on and off" every day, there were two short watches: from four p. m. 'till six and from six 'till eight.

During these "dog watches" fair weather usually found all hands around the fore hatch—mending, washing, or having a "sing-song."



J9.40, 359n

MENDING CLOTHES

As the ship leaves the tropics "woolies" are brought out, mended, and patched against the cold days and nights ahead.



J9.40,36a

THE SHARK

A shark has been following the ship for days, picking up such scraps as the cook throws overboard.

A council of war, permission from the captain, the shark hook from the carpenter, a hunk of salt beef from the steward, a stout line leading aft along the deck, over a snatch block on the main royal backstay and thence to the taffrail——

The shark takes the bait, and with a yell that wakes the watch below everyone tails on to the line and runs the quarry up to the block.

A moment later he is on deck, thrashing and smashing everything within reach of his tail.

Then a demonstration of the sailor's hereditary feelings towards his ancient enemy. Hate—furious, immeasurable, and insensate. Clubbed and belaboured with capstan bars, all to no apparent effect, the fish takes possession of the deck until the cook, with a stroke of an axe, severs the tail. A few minutes more and the backbone and the dreadful jaws with rows of razor teeth, are hanging to dry on the fore stay, while the tail is nailed to the jib-boom end to bring fair winds.



A PASSING BARQUE

The men line the rail; the cook, pan in hand, runs from his galley, all intent on the stranger—to comment on her trim and guess her nationality, if she has not shown her colours.

If she exchanges signals and discloses her identity and destination some one of the crew is likely to announce that he once sailed in her, and adds a few uncomplimentary remarks by way of embellishment.



J7.40, 361n

THE BARQUE

This was the handiest form of three-masted square rigger. Strange as it may seem to the landsman, many vessels which began their career as full-rigged ships, and were later altered to barques, were found to sail faster under the reduced sail spread.



J7. 40,362n

THE BARKENTINE

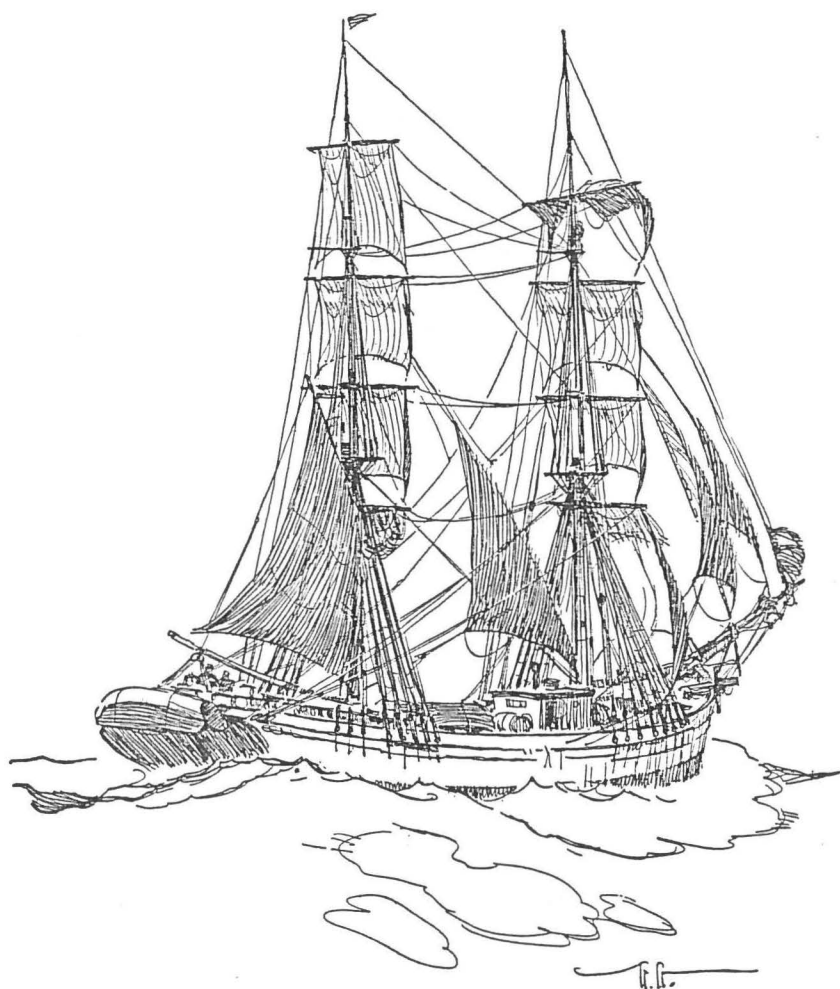
This rig had the good qualities of the fore and aft schooner; handiness under a reduced crew, plus the advantage of the square sails on the foremast for running before the wind.



THE BRIG

These pretty little square riggers have quite disappeared from the seas.

The rig was subject to variation: Full-rigged Brig—setting a sail on both lower yards. Brigantine—with no sail on the main yard. Hermaphrodite Brig—square rigged on the foremast only.



LIME JUICE

To prevent scurvy, owing to lack of fresh vegetables and constant eating of salt meat, British ships served lime juice and water to the crew.

It was not an unpleasant drink by any means, but the fact that it was prescribed was enough to make the sailor grouse, and British ships thus acquired, among American seamen, their name of "Lime Juicers," and British sailors, "Limeys."

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J9.40,363n

BATHING IN THE RAIN

The limited supply of fresh water carried by sailing ships prohibited its use for aught but cooking and drinking purposes, so a tropic rain squall was not wasted.

Clothes were scrubbed on the forehatch or in buckets under the drains from the foc's'le scuppers, and a "soap down" for such as welcomed a bath after weeks of going without.



CROSSING THE LINE

No man was a deep-water sailor until he had crossed the Equator.

With little to do in the "Trades" but "spit and polish" the crossing was a general holiday, and Neptune held court. Each lubber in turn was given a lather of slush, and shaved with a barrel hoop, after which he was well soused in sea water, either on deck or over the side.

The officers held aloof, but usually could be found behind a boat somewhere, enjoying the initiation.



Gordon Grant

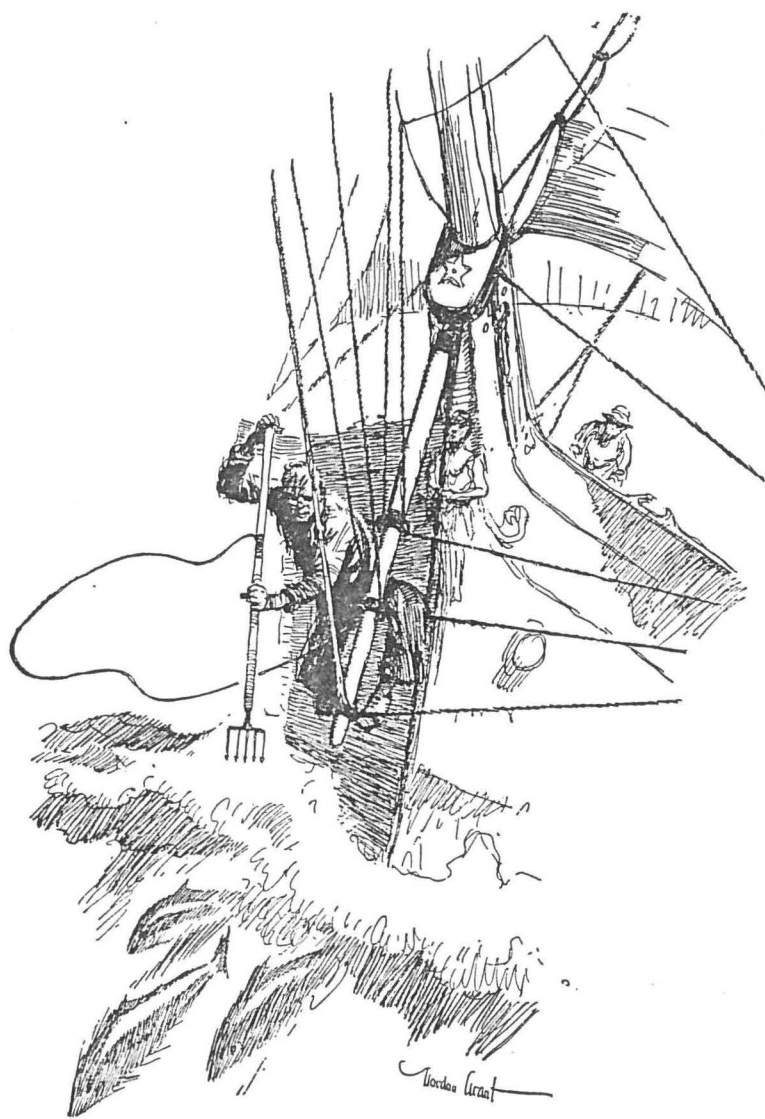
J9.40, 364 n

THE OLD WHALER

There was seldom a crew in the old days which had not among its number a man who had served in whale ships. The sight of a whale to him was like the noise of battle to the old war horse.

The urge to "lower away" could only be satisfied by climbing down into the martingale stays and harpooning bonita or dolphins which played about the bows.

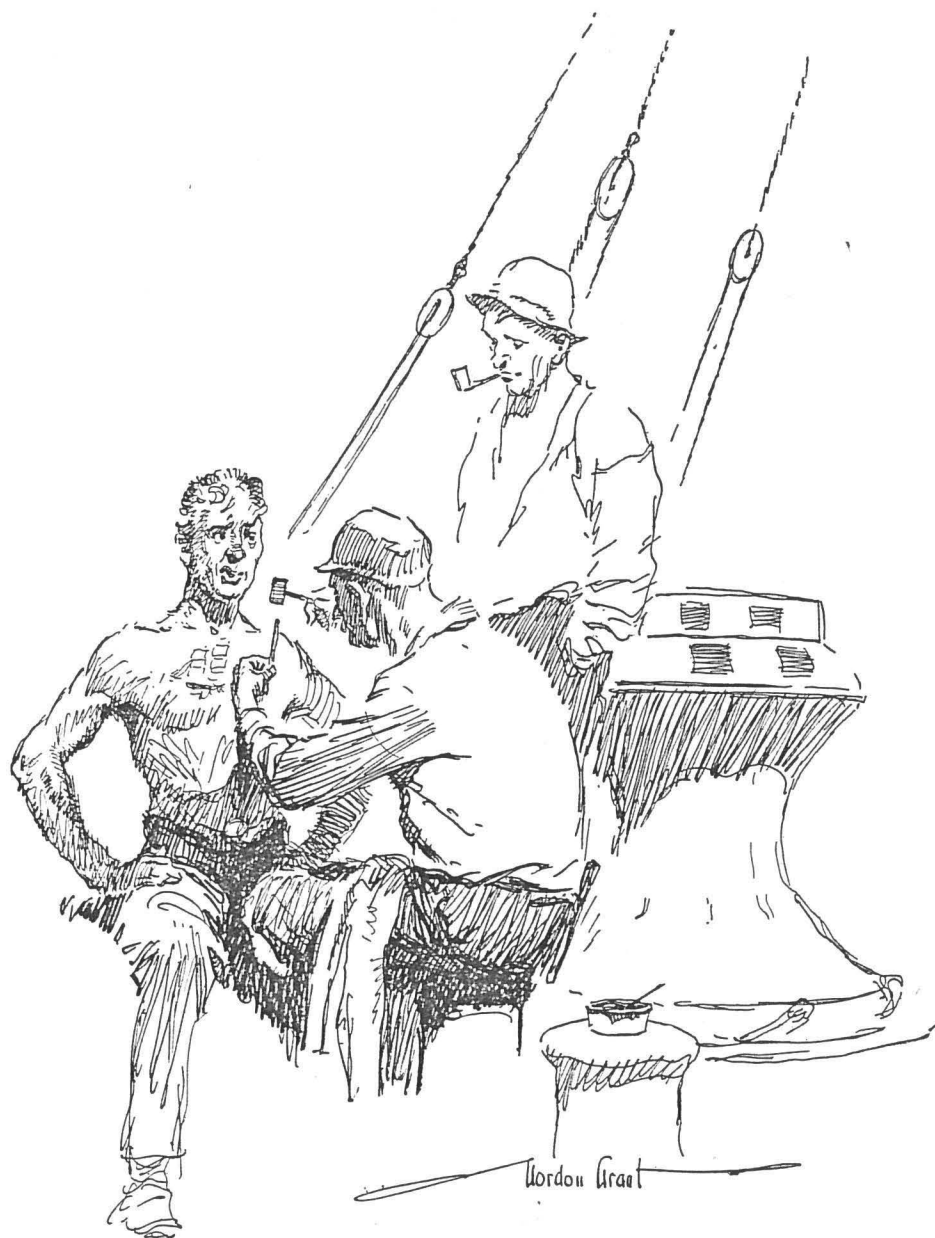
The fresh fish he supplied was a welcome relief from the weary round of salt pork and beef.



TATTOOING

Many seasoned old shellbacks were walking picture galleries with their elaborate designs, executed by expert South Sea Island artists, or by those who hung out their signs along the water front of every large seaport.

Many were content to suffer under the hands of one of their shipmates, and displayed full-rigged ships across their chests, or anchors, flags, fat goddesses and serpents entwining their arms.



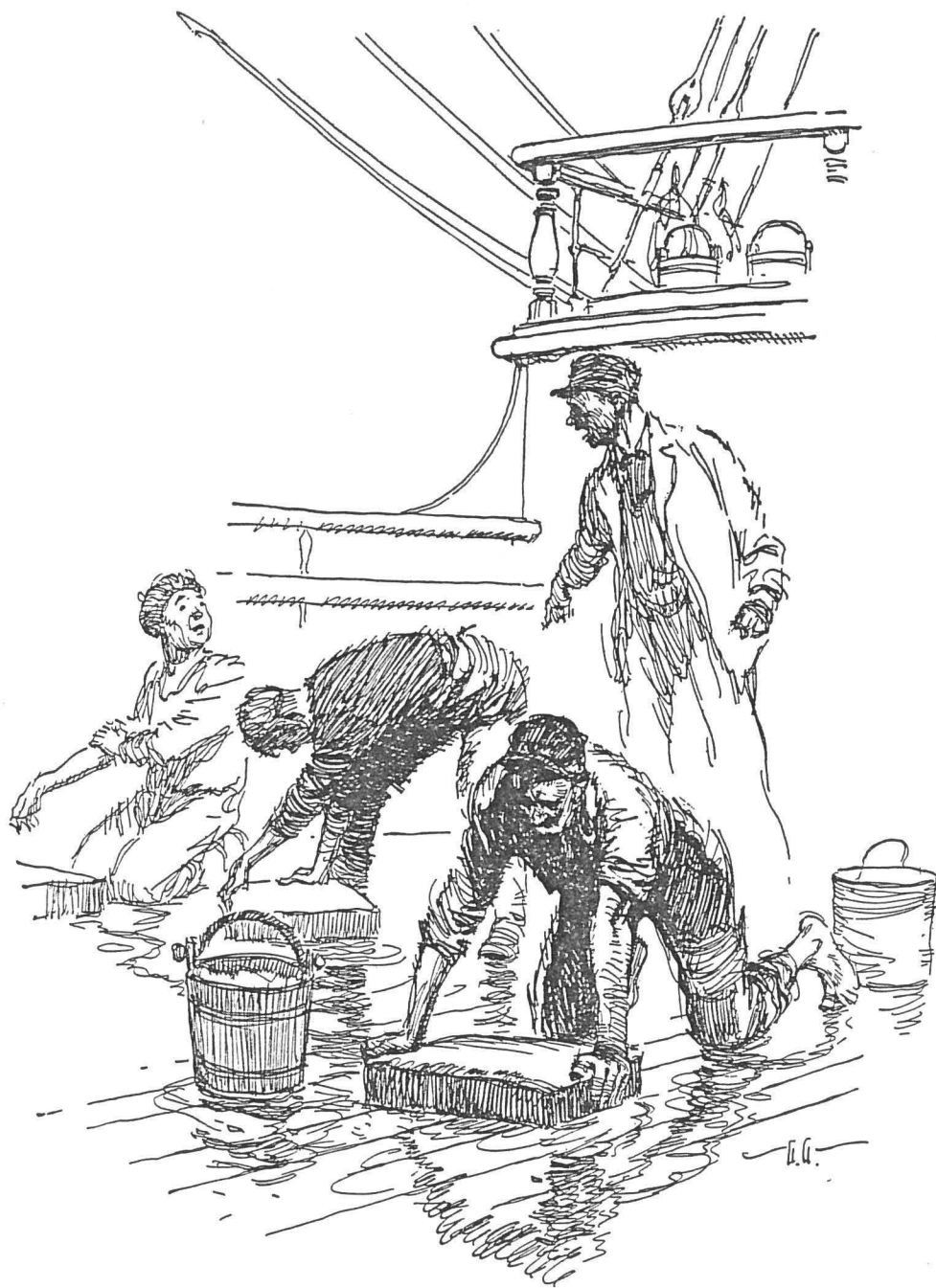
J9. 40, 365n

HOLYSTONING

Gleaming decks were the ship's greatest pride.

Heavy blocks of sandstone were used to whiten them. These were called Holystones or Bibles because the men got down on their knees to push them to and fro.

Small stones known as Prayerbooks were used for getting into corners and under the spare spars.



39,40,366n



Gordon Grant

THE MODEL MAKER

His present ship seldom had a good word from the sailor. Time, however, weaves a sentiment about some former craft, so from such material as he can find aboard he makes a model of her.

It will, most likely, be a clumsy affair despite his best efforts,—it will be sold for a round of drinks when the voyage ends, and lie dust-covered in a water side junk shop until rescued by some dealer in antiques, and end up finally on the mantel-piece of some lover of sea tales.

TARRING DOWN BACKSTAYS

The tarring of standing rigging was a tedious and messy job.

Armed with his tar pot, slung about his shoulders, a wad of oakum or a stubby brush, each man was lowered in a bosun's chair from the masthead and successively tarred the backstays, hitching his feet around the stay to keep from being swung off into space with the roll of the ship.

Woe betide him should he drop any of his tar on sails or deck.



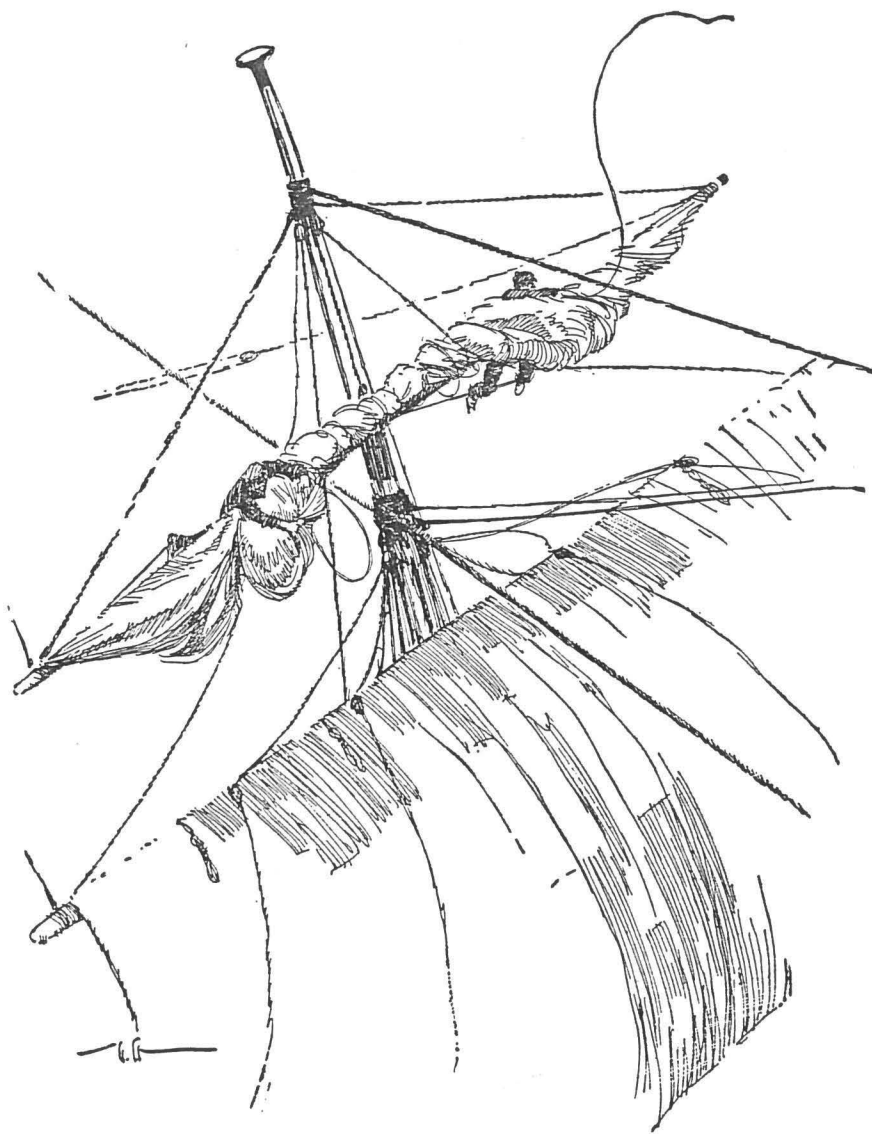
V71,40,367m

FURLING ROYALS

One hundred and eighty odd feet from the deck, swinging through a wide arc, getting in a royal was no job for squeamish folk.

The old sailor's advice to the panic-stricken boy furling his first royal was:

"One hand for yourself and one for the ship. Keep your eye on your job and don't look down."



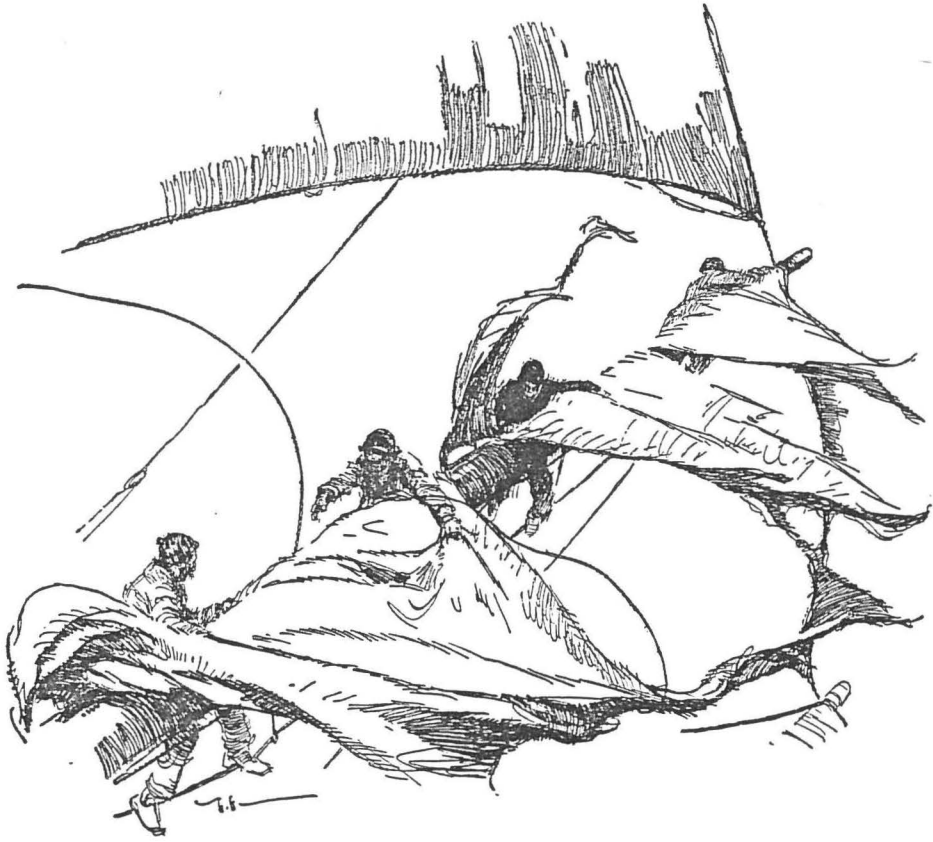
V71, 40,368n

A BURST TOPSAIL

A sudden squall—a report like a gun-shot—all eyes aloft and a bellow from the mate.

“Aloft and get it in!”

If the men are smart some of the sail may be saved, but more often it will be blown to ribbons in a few minutes, and nothing left but the bolt ropes.

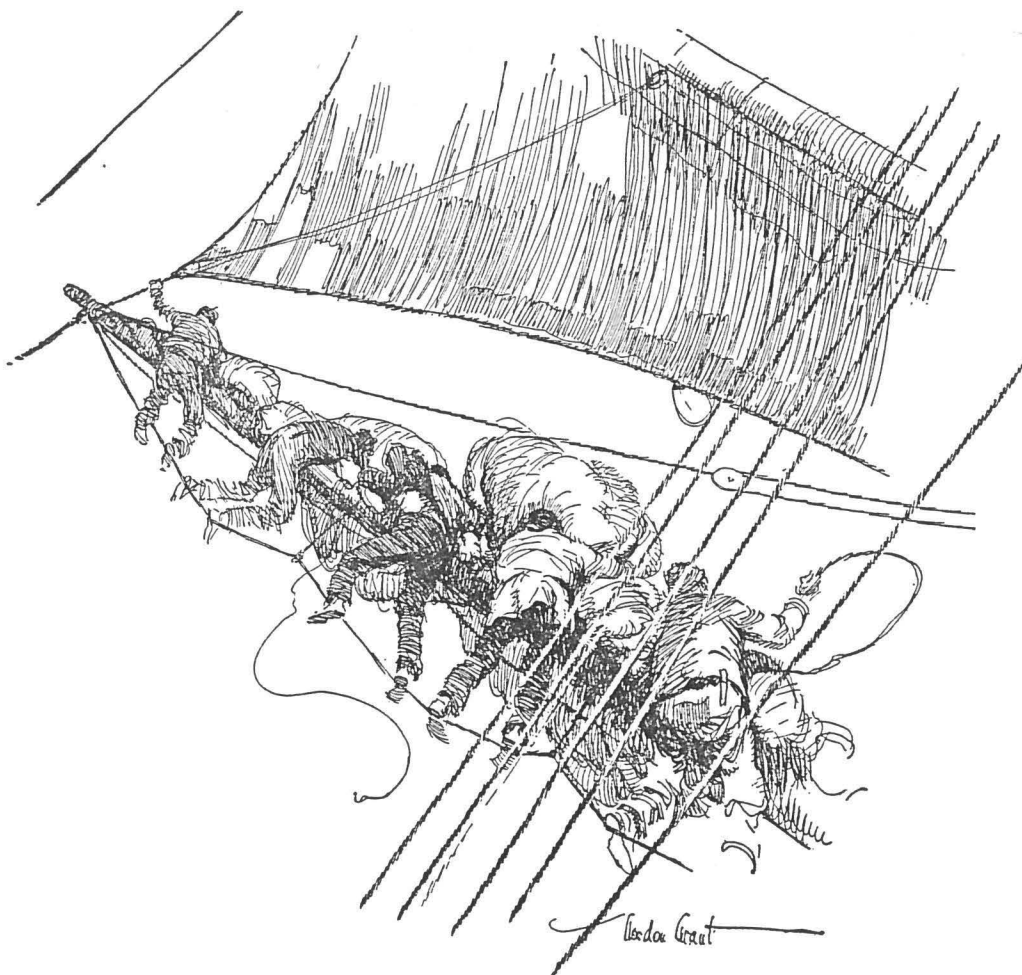


A BATTLE WITH THE FORESAIL

In a hard blow the whole watch lay aloft to reef or furl the mainsail or foresail.

Strung out along the yard, standing on the swaying foot-rope, often with bleeding fingers, clutching and clawing at the unruly half acre of billowing canvas, they struggled to get the wind out of it and pass the gaskets round the yard.

To secure the sail was the only consideration, and looks counted for nothing. But when approaching port the sails were furled in what was known as a "harbour stow"—without a wrinkle, the clews hanging symmetrically on either side of the slings, with a fancy bunt gasket between.



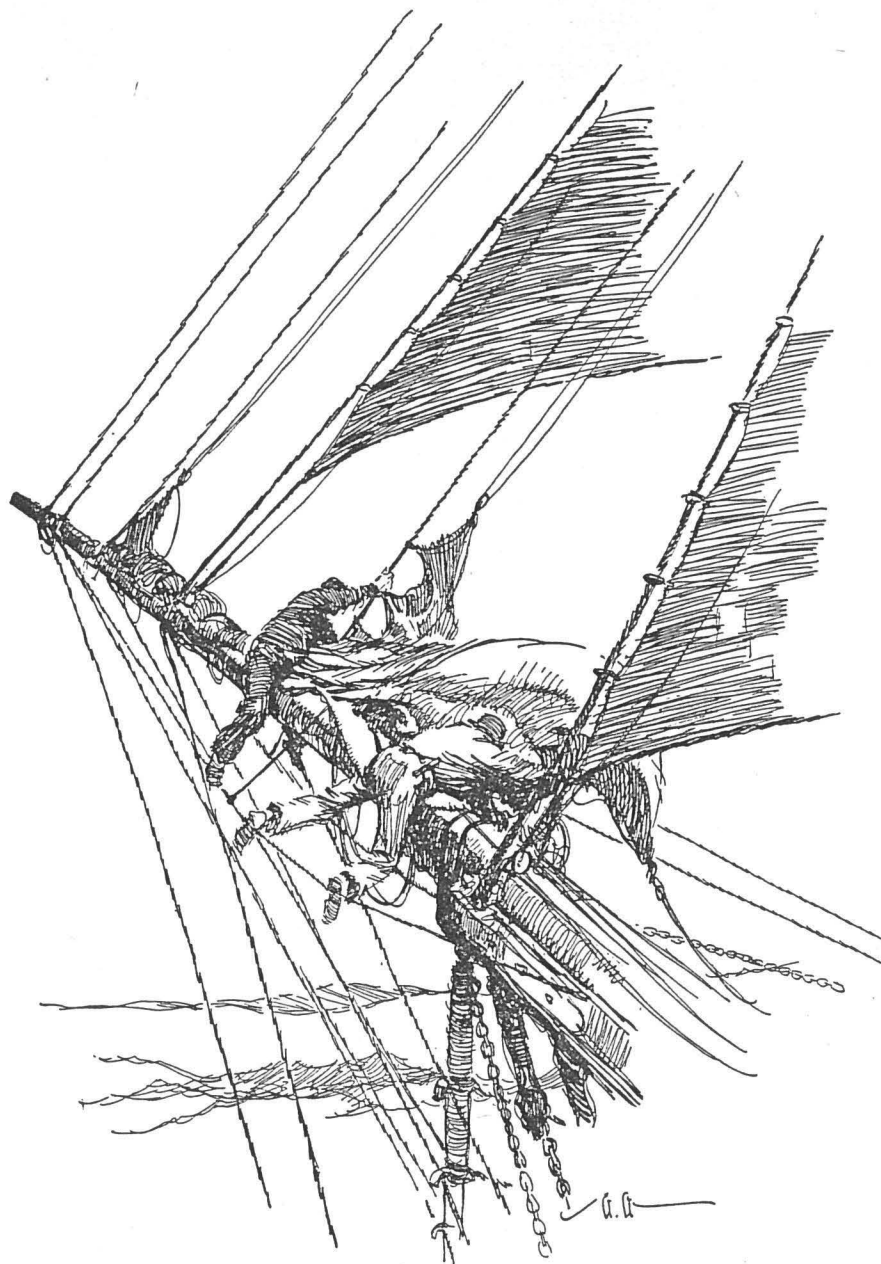
V71. 40,369n

FURLING JIBS

In the old sailing ships-of-war it was the custom to spread nettings under the jibboom for the safety of the men, but few merchant ships were so provided.

Stowing jibs was very hazardous in heavy weather and when close hauled.

The ship would often pitch her head, without warning, into a cresting sea, and come up minus one or two of her crew.

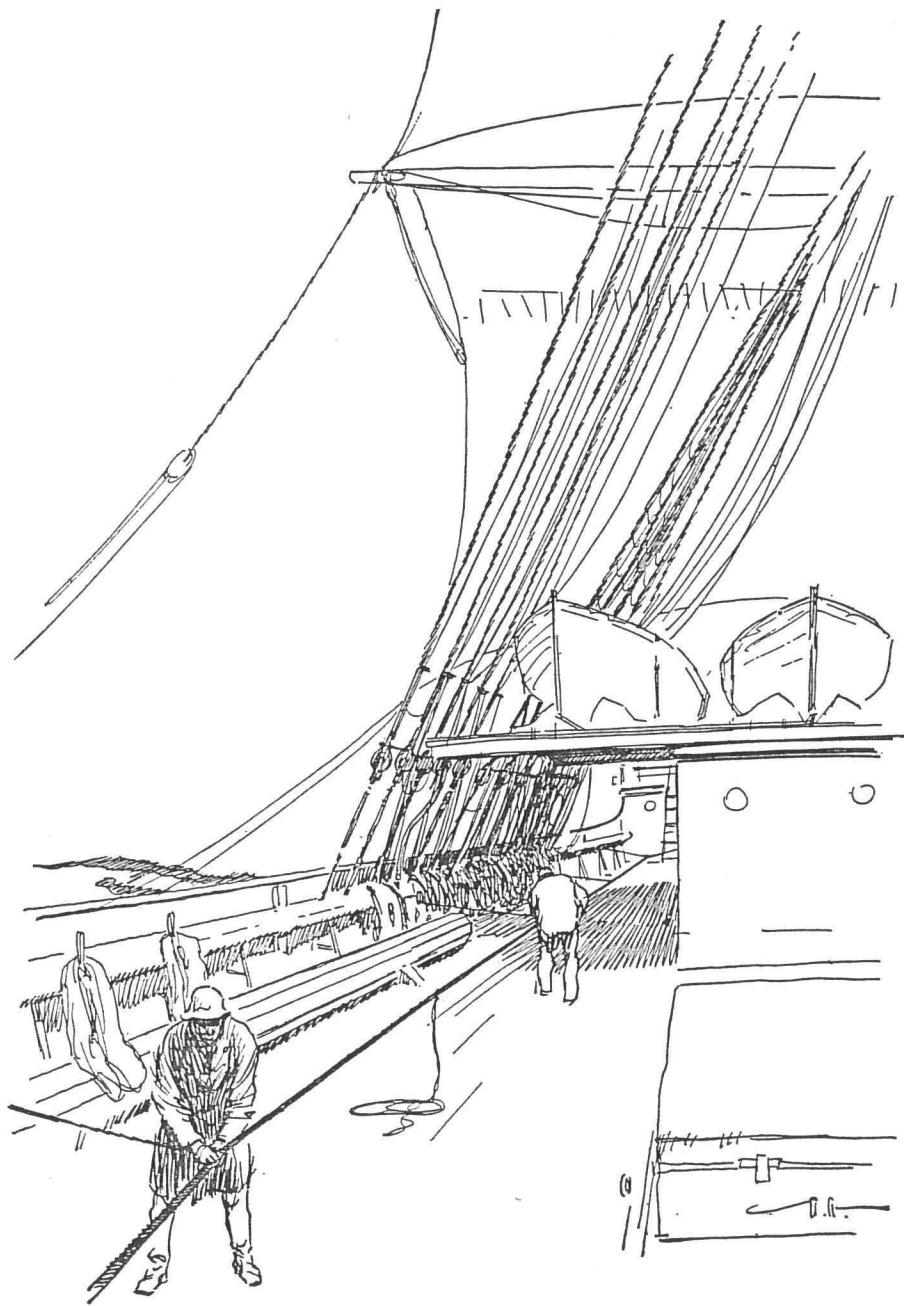


V71. 40, 370n

RIGGING LIFE LINES

In anticipation of heavy weather a stout wire rope was led from the fore to the mizzen fife rails, about five feet above the deck.

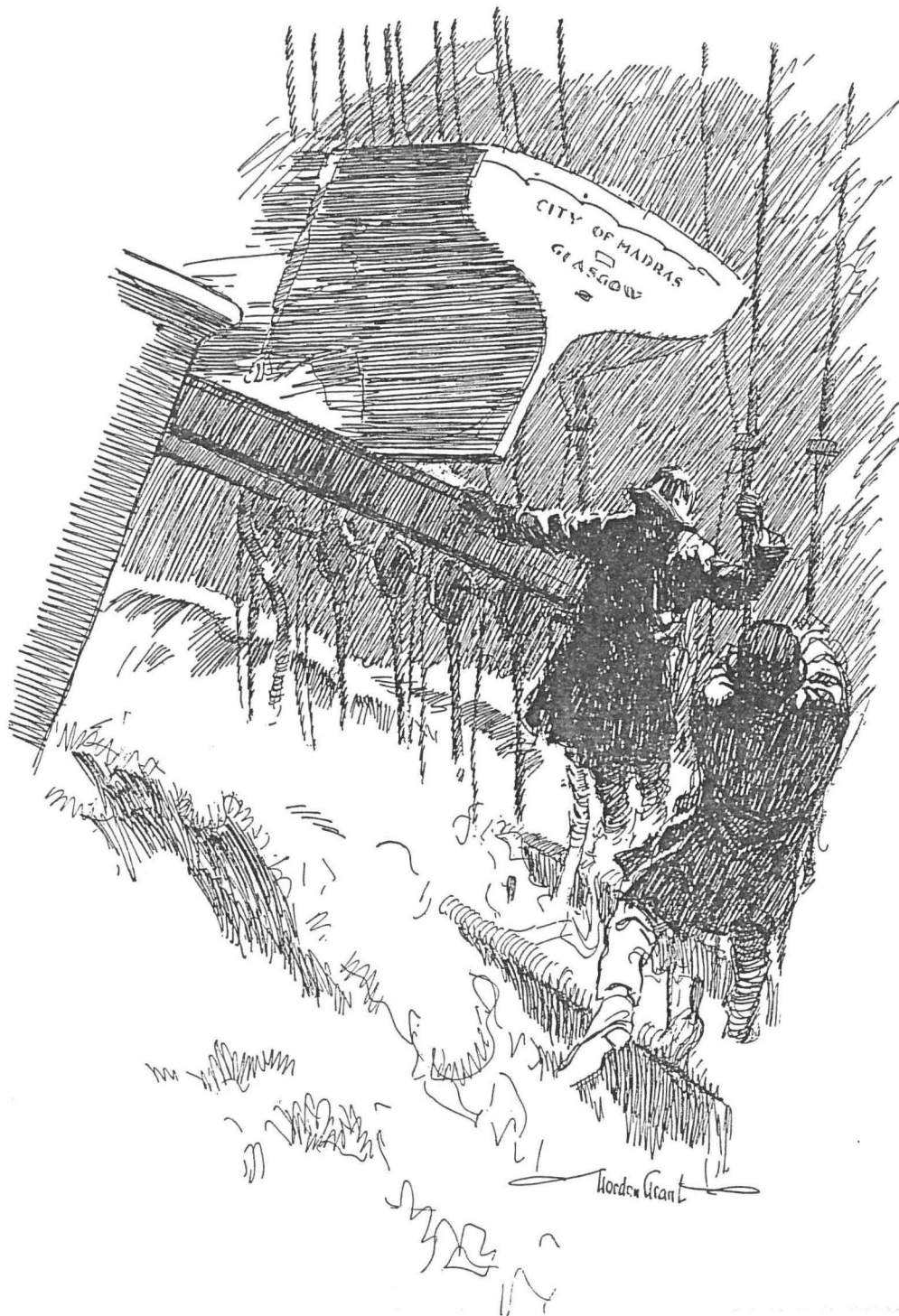
This in turn was bowsed taut as a fiddle string by means of short lines at intervals to the bulwarks.



SHIPPING A SEA

The men spring to the shrouds as the seas come over the weather rail and fill the deck.

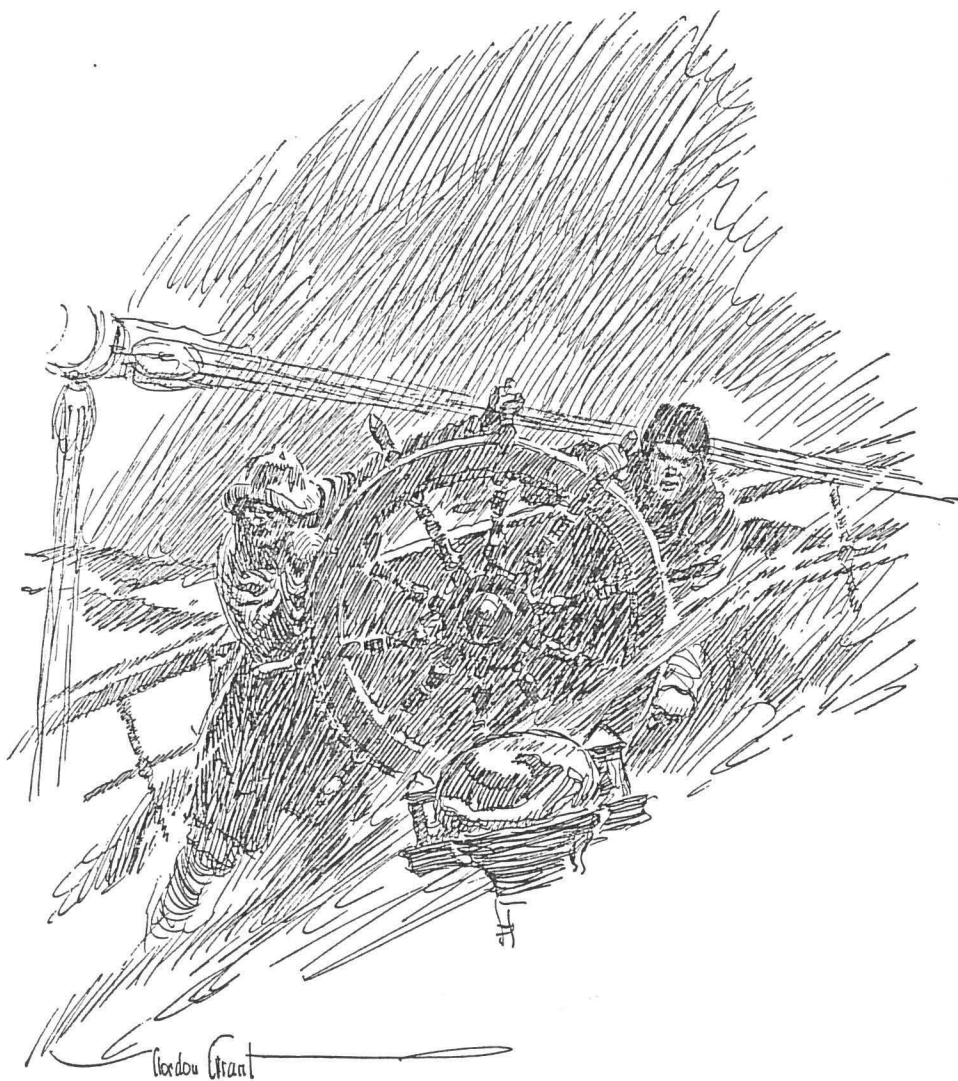
A trip from poop to foc's'le while she was "taking it green" was a hazardous undertaking, life lines notwithstanding.



TWO MEN AT THE WHEEL

The old-fashioned wheel with its rope tackle was as unruly as a bucking broncho, and took its toll in many broken arms and legs.

With the introduction of worm screw gear a single man had much better control of the helm, but with a pitching ship and a long-following sea, it took two seasoned men to keep the vessel from broaching to.



39.40,371n

"ALL HANDS!"

Dirty weather in the "Roaring Forties." The watch has been relieved at midnight and has turned in, exhausted and sodden, for four hours' sleep.

Suddenly the foc's'le door bursts open and the mate bellows:
"All hands! Shorten sail!"

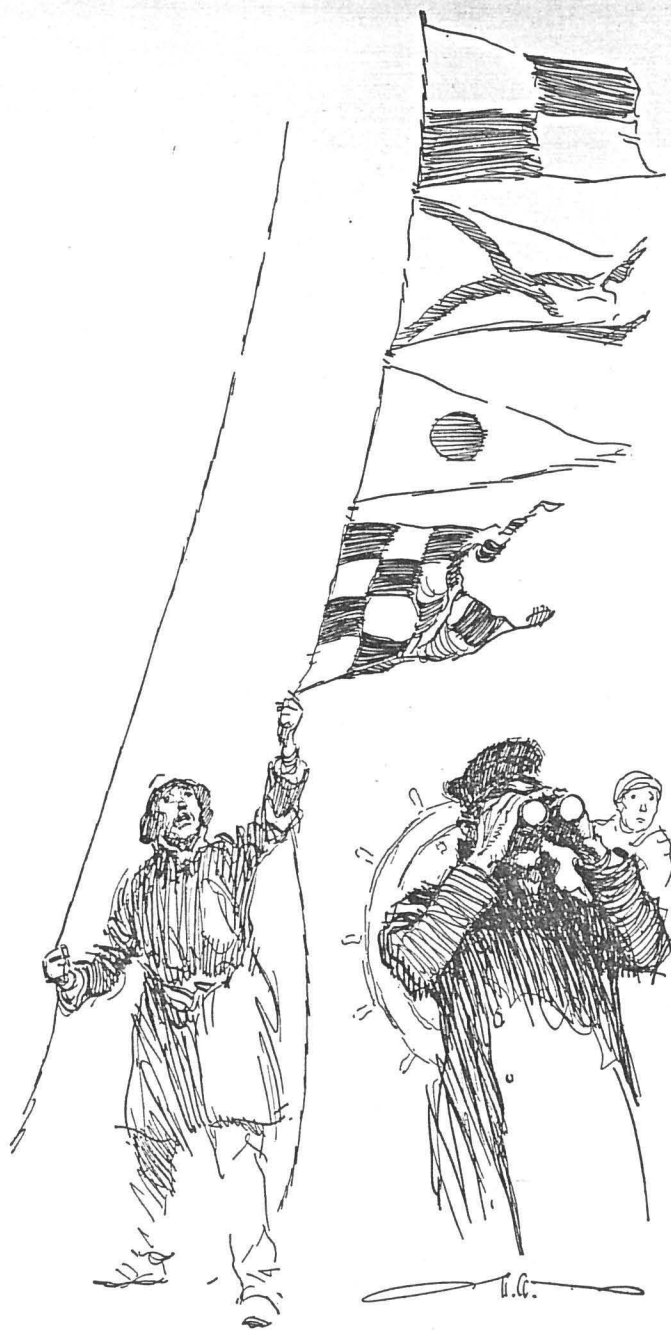
.
"Who wouldn't sell a farm and go to sea?"



J9. 49372n

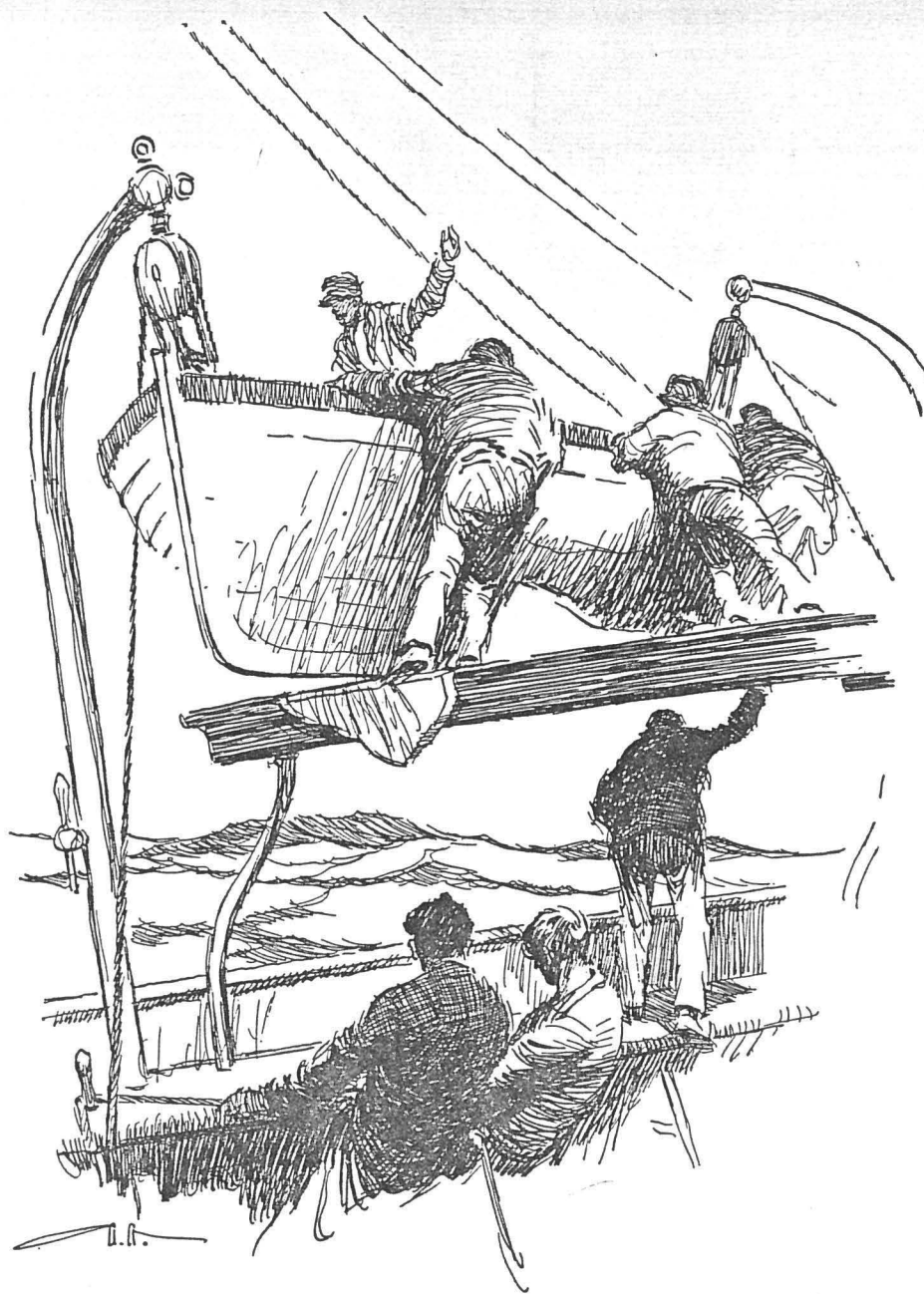
SIGNALLING

Passing ships usually exchanged by international code flags their names, destinations, and other such information. This was entered in the daily log and reported at the first port of call.



59.40,373 n

MAN OVERBOARD!



CHRISTMAS DINNER

The pig has waxed fat during the voyage and word is passed that roast pork and plum duff will be served on Christmas Day.

The pig (who bears the first mate's name among the crew), in some mysterious fashion senses his doom, breaks from his pen, and leads a merry chase from end to end of the deck.

Through the galley, the foc's'le, the deck house, the after cabin—he is finally cornered amid a din of squealing, yelling, laughter, and curses.

The cook, despite his claims to being an expert butcher, eventually makes a sorry and sanguinary mess of his job.



J9.40,374m

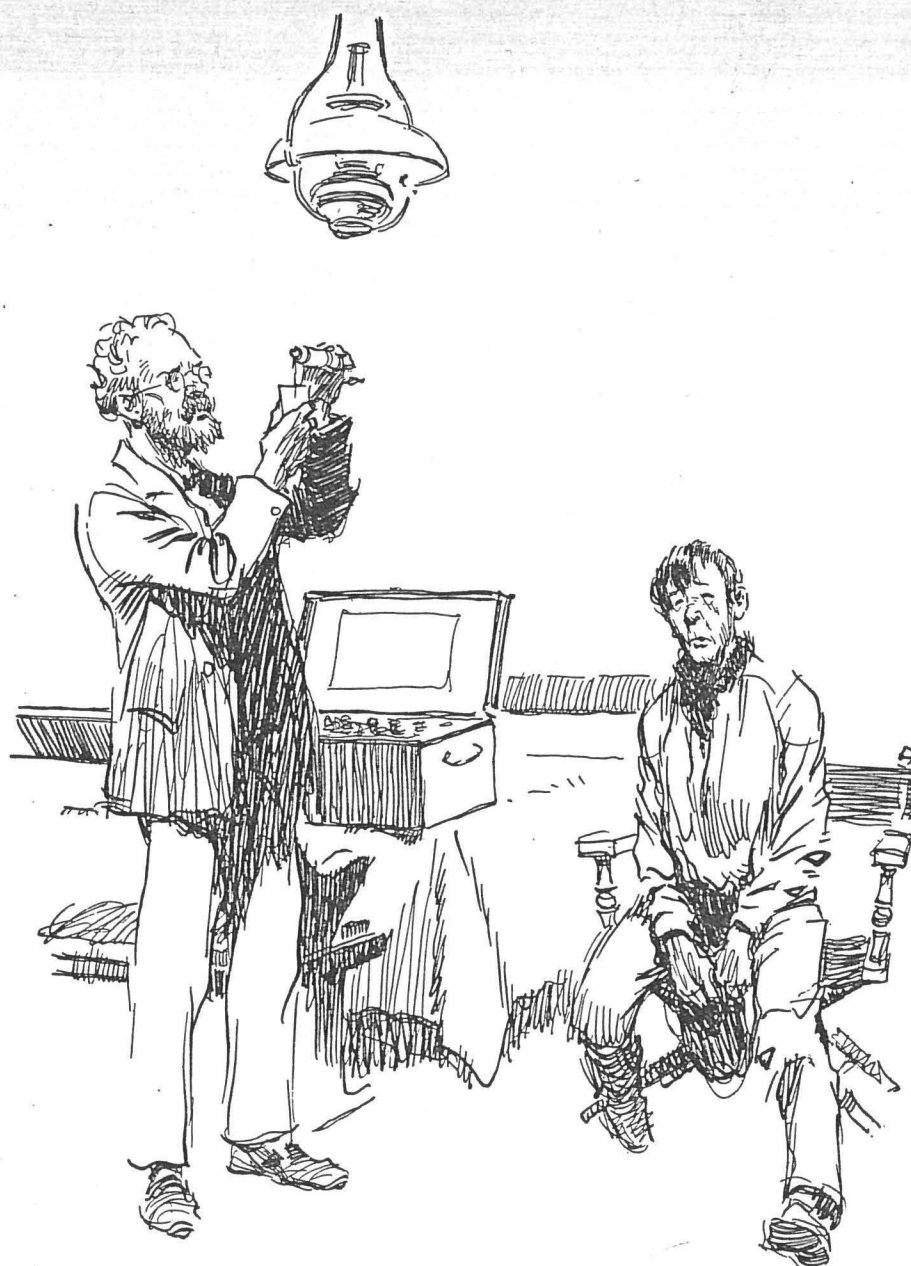
THE CAPTAIN PRESCRIBES

The ship was furnished with a medicine chest containing a few elementary remedies.

These were numbered, and their uses listed on a label pasted inside the lid.

The story is told of a certain skipper who found his 9 bottle empty, so he gave his patient a mixture of 4 and 5, with results that are not recorded.

If it did him no good it is safe to assume that it did him no great harm.



Gordon Grant

PSI, 40, 375h

BEFORE THE MAST

Hard bitten, hard living, ill treated, ill fed, ill paid— Sailor,
farmer, jailbird, wharf rat, broken gentleman:—rag, tag, and
bobtail—

Hail and Farewell!



BEAUTY TREATMENT

The figurehead was the last relic of the olden times when ships were lavishly decorated bow and stern.

Some of them were beautiful, manifesting great artistic talent on the part of the carver, and were the pride of the crew.

Before arrival in port, when the ship was groomed to make her best possible appearance, the figurehead was given a special coat of paint, and often times Jezebel herself would have hidden her head when the carpenter had finished robbing the rainbow under the bows.



Gordon Grant

VT2.40,376m

FIGUREHEADS

Lovely Ladies, Sultans, Armoured Knights, Dragons and Warriors, Gods and Goddesses.

Resplendant names—resplendant figureheads.

Even the little "Mary Jane" of Yarmouth must have hers too, be it no more than the local sculptor's homely effort to portray the captain's or the owner's wife or daughter.

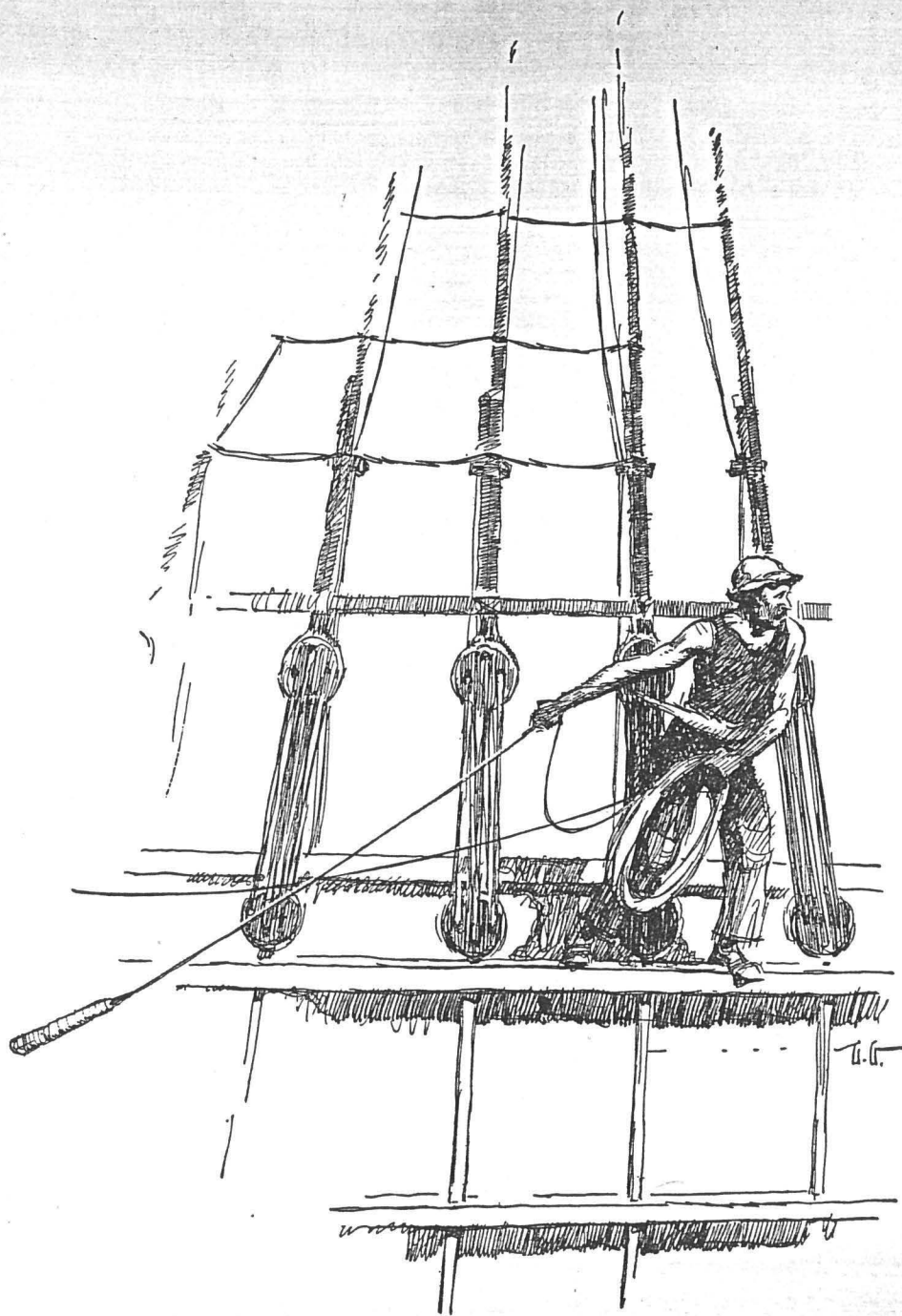


HEAVING THE LEAD

In tidal water where depths were doubtfully marked on the chart, or in thick weather off shore, soundings were made to determine the ship's position.

The leadsman stood in the fore channels and swung the lead. In the main and mizzen channels were other men who held the line as it led aft to the stern, where the mate stood by the line tub.

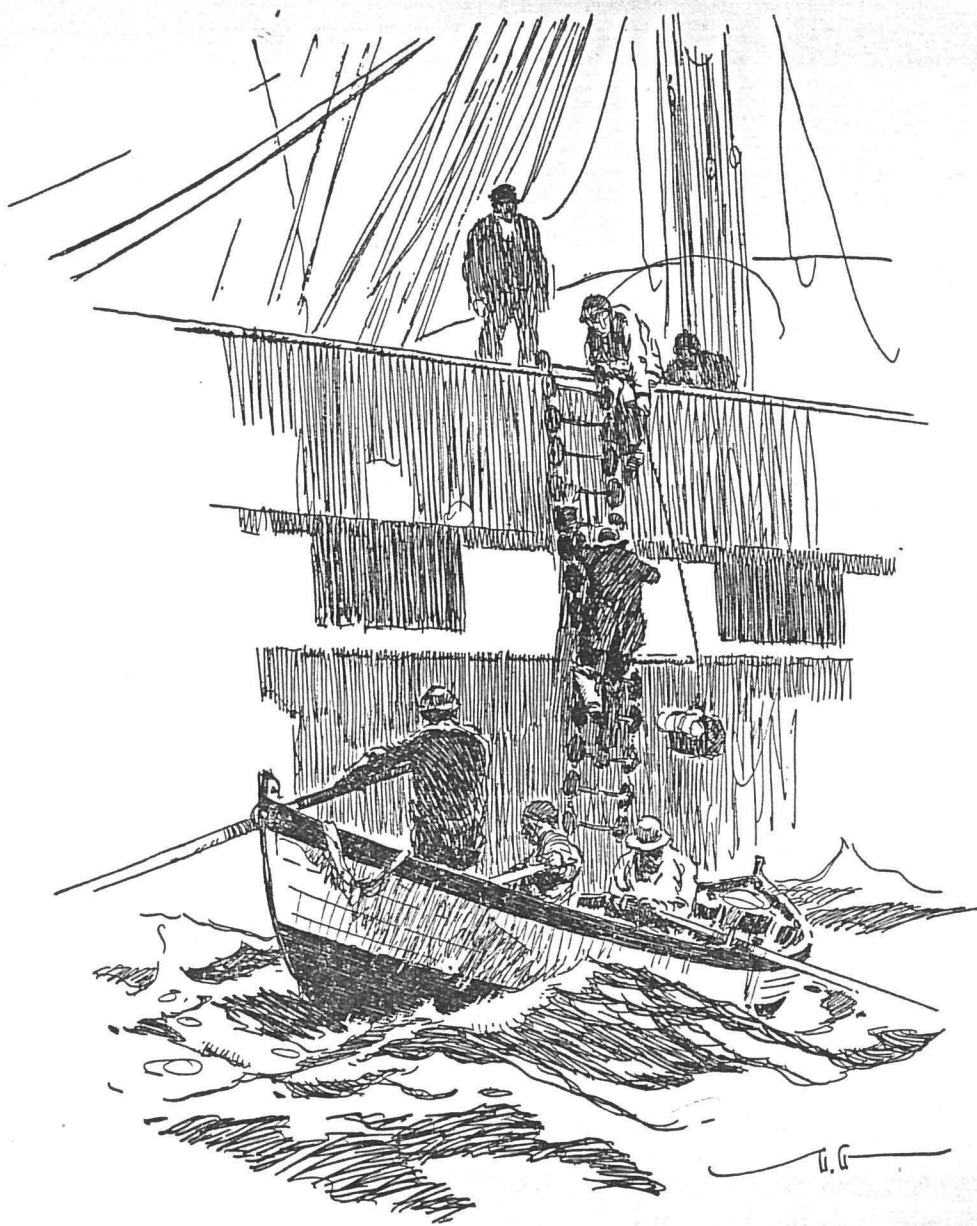
The leadsman called, "All ready there?" to the next man, the mate shouted "Heave!", and the lead went spinning forward. Each man let go as the line tautened, and the mate grasped the line as it ran from the tub, and made the sounding. If the lead struck bottom before it reached him, one of the others took the sounding and called the marks. Markers on the line indicated the depth in fathoms, and an "arming" of tallow in the end of the lead showed the nature of the bottom.



J9.40, 377h

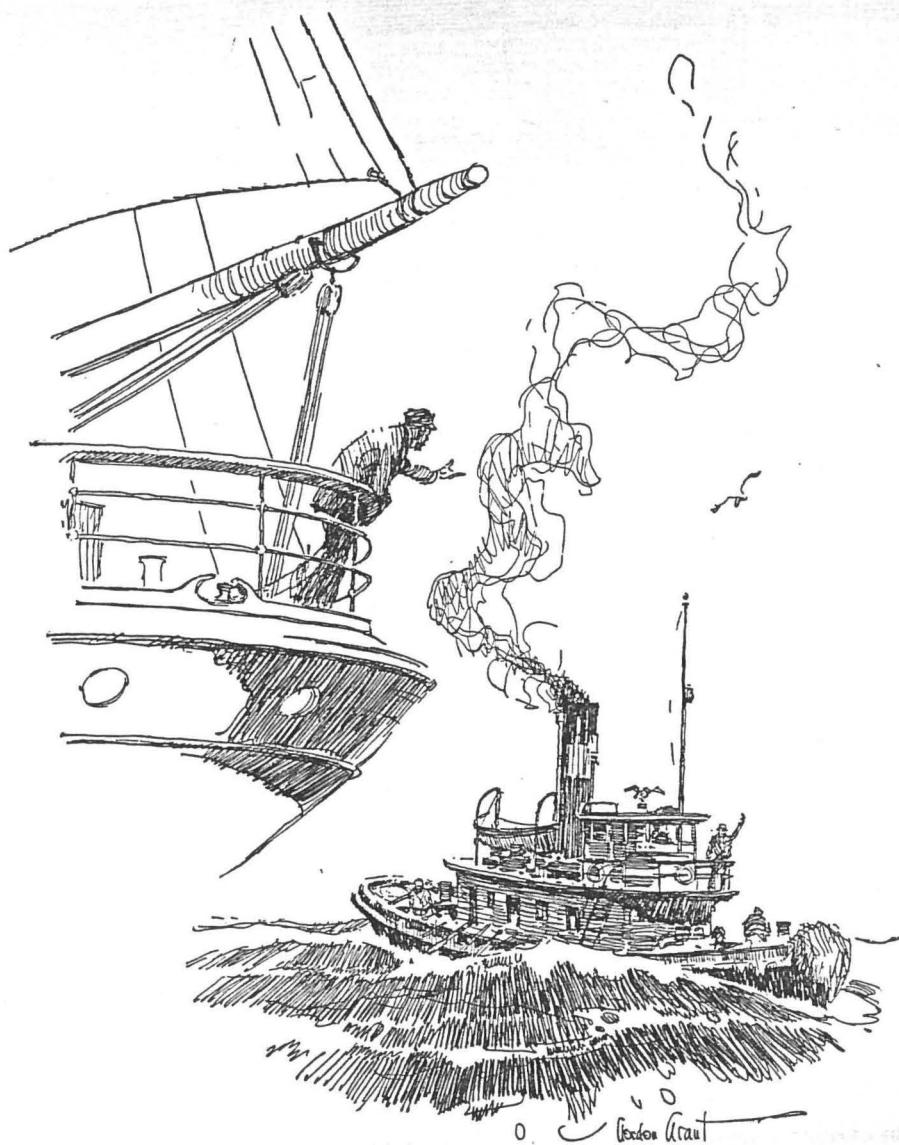
THE PILOT COMES ABOARD

After a voyage of three or four months, cut off from all news of the world, the arrival of the pilot, with newspapers and often letters, was a welcome event.



A DICKER WITH THE TUG

The tug comes out looking for a tow, and there ensues a lively bout between the two captains before a bargain is struck and the hawser passed.

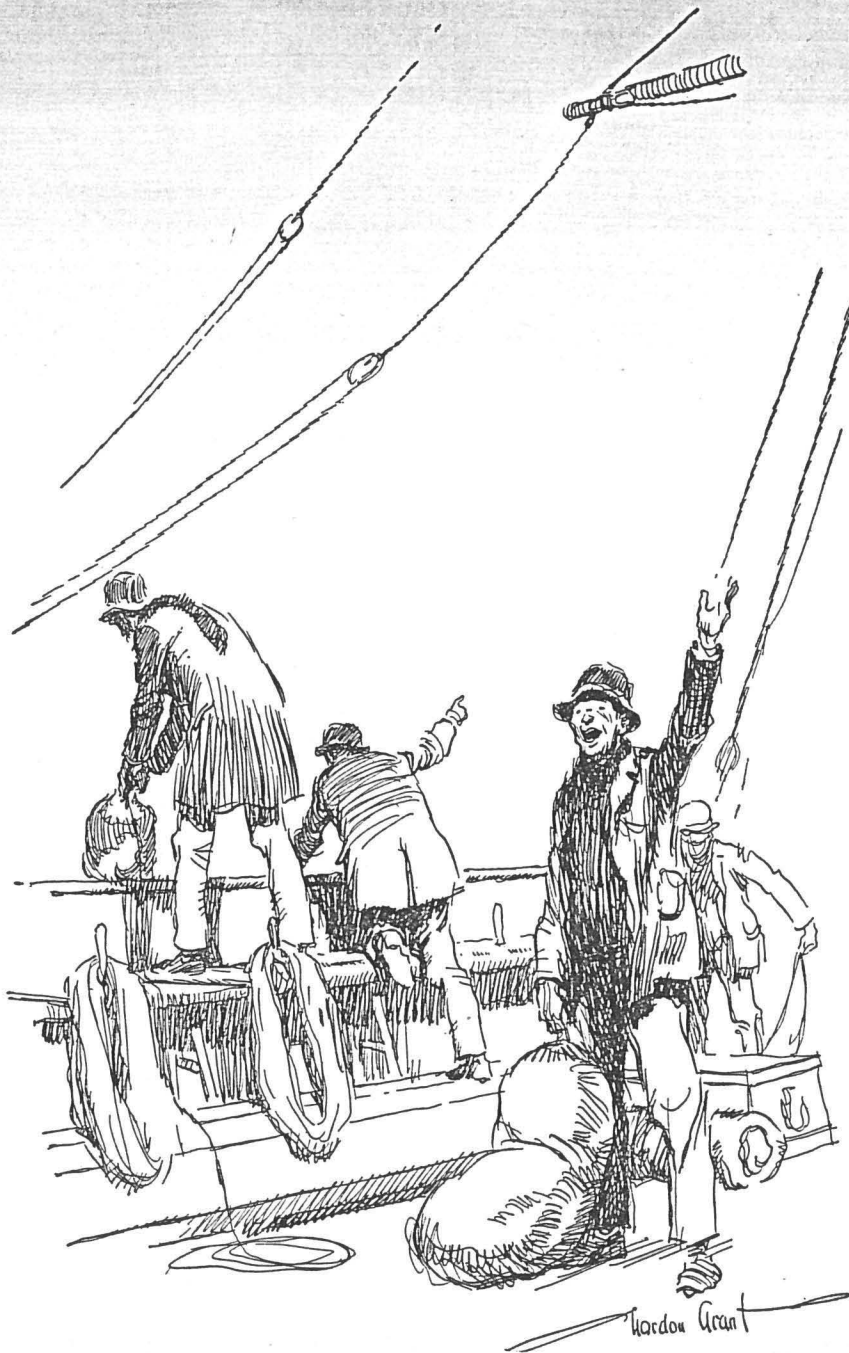


LEAVING HER

The ship is moored to the dock, the sails are unbent and stowed below, and everything is ready for the stevedores to break out the cargo.

The crew has been paid off, and with their slim belongings, and a parting insult to the mates they scuttle ashore, only to fall into the waiting hands of the crimps, to awake from a drunken stupor perhaps the very next morning and find themselves aboard an outward bounder.

The ship is old, the grub is bad.
Leave her, Johnny, leave her.
I'm getting thin, I'm growing sad;
It's time for us to leave her.
The sails are furled, our work is done,
Leave her, Johnny, leave her,
And now ashore we'll have some fun;
It's time for us to leave her.



K9,40,378n

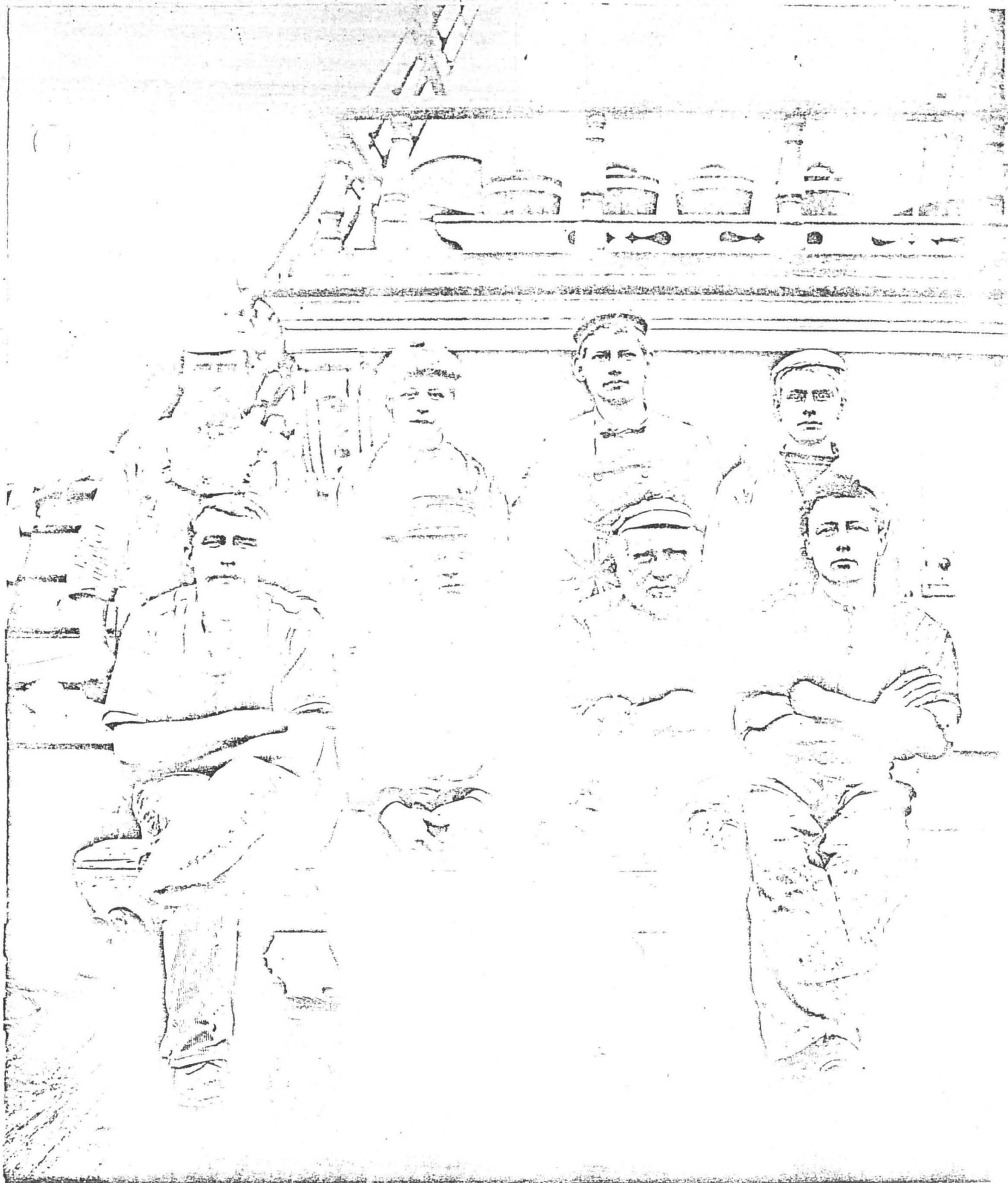
SECTION FOUR: THE MEN

BALCLUTHA
THE MEN

The crew and officers of the Balclutha followed traditions of the sea that had been practiced since the days of Drake and Nelson. Perhaps the best resource dealing with the responsibilities, duties, and traditions of the officers and crew is Dana's Seaman's Friend. (1856) While it was written some thirty years before the Balclutha sailed, it accurately reflects what was done and expected of the men of the Balclutha. The first section reproduced is a listing of nautical terms; it is followed by the section detailing the duties of the ship's crew from Captain to Ship's Boy.

BALCLUTHA
THE MEN

While the crew shown here is not the Balclutha's, they represent the typical sailor of Balclutha's day...shown here posing by the forecastle in their working clothes. Circa 1895-1905, Unidentified sailing vessel, Puget Sound, Washington, Wilhelm Hester, photographer. From the Photo Collection of the National Maritime Museum, San Francisco.



DANA'S
SEAMEN'S FRIEND:

CONTAINING
A Treatise on Practical Seamanship,

WITH PLATES;

A DICTIONARY OF SEA TERMS,
AND THE CUSTOMS AND USAGES OF THE MERCHANT SERVICE;
WITH THE BRITISH LAWS RELATING TO SHIPPING,
THE DUTIES OF MASTER AND MARINERS,
AND THE MERCANTILE MARINE.

NEW EDITION, REVISED AND CORRECTED, AND WITH NOTES.

BY JAMES LEES,

AUTHOR OF THE "LAWS OF SHIPPING AND INSURANCE,"
"LETTERS TO SHIPMASTERS," ETC. ETC.

LONDON:

GEORGE PHILIP AND SON, 32 FLEET STREET;

AND 21 SOUTH CASTLE STREET, LIVERPOOL.

EDINBURGH: OLIVER AND BOYD. DUBLIN: WILLIAM ROBERTSON.

1856.

LIVERPOOL:
PRINTED BY GEORGE PHILIP AND SON,
61 SOUTH CASTLE STREET.

DICTIONARY OF SEA TERMS.

ABACK. The situation of the sails when the wind presses their surfaces against the mast, and tends to force the vessel astern.

ABEFT. Toward the stern of a vessel.

ABOARD. Within a vessel.

ABOUT. On the other tack.

ABREAST. Alongside of. Side by side.

ACCOMMODATION. (See LADDER.)

A-COCK-BILL. The situation of the yards when they are topped up at an angle with the deck. The situation of an anchor when it hangs to the cat-head by the ring only.

ADRIPT. Broken from moorings or fasts. Without fasts.

AYOAT. Resting on the surface of the water.

AFORE. Forward. The opposite of abaft.

AFY-After. Near the stern.

AGROUND. Touching the bottom.

AHEAD. In the direction of the vessel's head. *Wind ahead* is from the direction toward which the vessel's head points.

A-HULL. The situation of a vessel when she lies with all her sails furled and her helm lashed a-lee.

A-LEE. The situation of the helm when it is put in the opposite direction from that in which the wind blows.

ALL-ABACK. When all the sails are aback.

ALL HANDS. The whole crew.

ALL IN THE WIND. When all the sails are shaking.

A-LOFT. Above the deck.

A-LOOF. At a distance.

AMAIN. Suddenly. At once.

AMIDSHIPS. In the centre of the vessel; either with reference to her length or to her breadth.

ANCHOR. The machine by which, when dropped to the bottom, the vessel is held fast.

ANCHOR-WATCH. (See WATCH.)

AN-END. When a mast is perpendicular to the deck.

A-PEEK. When the cable is hove taut so as to bring the vessel nearly over her anchor. The yards are *a-peek* when they are topped up by contrary lifts.

APRON. A piece of timber fixed behind the lower part of the stern, just above the fore end of the keel. A covering to the vent or lock of a cannon.

ARM. YARD-ARM. The extremity of a yard. Also, the lower part of an anchor, crossing the shank and terminating in the flukes.

ARMING. A piece of tallow put in the cavity and over the bottom of a lead-line.

A-STEM. In the direction of the stern. The opposite of ahead.

A-TAUNT. (See TAUNT.)

ATHWART. Across.

Athwart-ships. Across the line of the vessel's keel.

Athwart-hawse. Across the direction of a vessel's head. Across her cable.

ATHWART-SHIPS. Across the length of a vessel. In opposition to fore-and-aft.

A-TRIP. The situation of the anchor when it is raised clear of the ground. The same as a-weigh.

AVAST, or VAST. An order to stop; as, "Avast heaving!"

A-WEATHER. The situation of the helm when it is put in the direction from which the wind blows.

A-WEIGH. The same as a-trip.

AWNING. A covering of canvas over a vessel's deck, or over a boat, to keep off sun or rain.

BACK. To back an anchor, is to carry out a smaller one ahead of the one by which the vessel rides, to take off some of the strain.

To back a sail, is to throw it aback.

To back and fill, is alternately to back and fill the sails.

BACKSTAYE. Stays running from a masthead to the vessel's side, slanting a little aft. (See STAYS.)

BAGGINS. To baggins the mizzen, is to lay it aback by bringing the sheet to the weather mizzen rigging.

BALANCE-REEF. A reef in a spanker or fore-and-aft mainsail, which runs from the outer head-earing, diagonally, to the tack. It is the closest reef, and makes the sail triangular, or nearly so.

BALZ. To bale a boat, is to throw water out of her.

BALLAST. Heavy material, as iron, lead, or stone, placed in the bottom of the hold, to keep a vessel from upsetting.

To freshen ballast, is to shift it. Coarse gravel is called *shingle ballast*.

BANK. A boat is *double banked* when two oars, one opposite the other, are pulled by men seated on the same thwart.

BAR. A bank or shoal at the entrance of a harbour.

Capstan-bars are heavy pieces of wood by which the capstan is hove round.

BAR-POLES. The condition of a ship when she has no sail set.

BARON. A large double-banked boat, used by the commander of a vessel in the navy.

BARX, or BARQUEL. (See PLATE 4.) A three-masted vessel, having her fore and main masts rigged like a ship's, and her mizzenmast like the mainmast of a schooner, with no sail upon it but a spanker, and gaff top-sail.

BARNACLE. A shell-fish often found on a vessel's bottom.

BATTENS. Thin strips of wood put around the hatches to keep the tarpaulin down. Also, put upon rigging to keep it from chafing. A large batten widened at the end, and put upon rigging, is called a *scotchman*.

BEACON. A post or buoy placed over a shoal or bank to warn vessels off. Also as a signal mark on land.

BEAMS. Strong pieces of timber stretching across the vessel, to support the decks.

On the weather or lee beam, is in a direction to windward or leeward, at right angles with the keel.

On beam ends. The situation of a vessel when turned over so that her beams are inclined toward the vertical.

BEAR. An object bears so and so, when it is in such a direction from the person looking.

To bear down upon a vessel, is to approach her from the windward.

To bear up, is to put the helm up and keep a vessel off from her course, and move her to leeward.

To bear away, is the same as to bear up; being applied to the vessel instead of to the tiller.

To bear-a-hind. To make haste.

- BEARING.** The direction of an object from the person looking. The *bearings* of a vessel are the widest part of her below the plank-shear. That part of her hull which is on the water-line when she is at anchor and in her proper trim.
- BEATING.** Going toward the direction of the wind, by alternate tacks.
- BEOALM.** To intercept the wind. A vessel or highland to windward is said to *bealm* another. So one sail *bealms* another.
- BECKET.** A piece of rope placed so as to confine a spar or another rope. A handle made of rope, in the form of a circle (as the handle of a chest), is called a *becket*.
- BEES.** Pieces of plank bolted to the outer end of the bowsprit, to reeve the foretopmast stays through.
- BELEY.** To make a rope fast by turns round a pin or coll, without hitching or seizing it.
- BEND.** To make fast.
To bend a sail, is to make it fast to the yard.
To bend a cable, is to make it fast to the anchor.
A bend, is a knot by which one rope is made fast to another.
- BENDS.** (See PLATE 8.) The strongest part of a vessel's side, to which the beams, knees, and foot-hooks are bolted. The part between the water's edge and the bulwarks.
- BENRATED.** (See NEARDED.)
- BENTRICK SHROUDS.** Formerly used, and extending from the fattock-staves to the opposite channels.
- BERTH.** The place where a vessel lies. The place in which a man sleeps.
- BETWEEN-DECKS.** The space between any two decks of a ship.
- BIBBS.** Pieces of timber bolted to the rounds of a mast, to support the wrestle-trees.
- BIGHT.** The double part of a rope when it is folded; in contradistinction from the ends. Any part of a rope may be called the bight, except the ends. Also, a bend in the shore, making a small bay or inlet.
- BILGE.** That part of the floor of a ship upon which she would rest if aground; being the part near the keel which is more in a horizontal than a perpendicular line.
- Bilge-ways.** Pieces of timber bolted together and placed under the bilge, in launching.
- Bilged.** When the bilge is broken in.
- Bilge Water.** Water which settles in the bilges.
- Bilge.** The largest circumference of a cask.
- BILL.** The point at the extremity of the fluke of an anchor.
- BILLET-HEAD.** (See HEAD.)
- BINKAOLE.** A box near the helm, containing the compass.
- BIRTS.** Perpendicular pieces of timber going through the deck, placed to secure anything to. The cables are fastened to them, if there is no windlass. There are also *birts* to secure the windlasses, and on each side of the heel of the bowsprit.
- BITTER, or BITTER-END.** That part of the cable which is abaft the birts.
- BLACKWALL HITCH.** (See PLATE 5 and page 81.)
- BLADE.** The flat part of an oar, which goes into the water.
- BLOCK.** A piece of wood with sheaves, or wheels, in it, through which the running rigging passes, to add to the purchase. (See page 34.)
- BLUFF.** A bluff-bowed or bluff-headed vessel is one which is full and square forward.
- BOARD.** The stretch a vessel makes upon one tack, when she is beating.
Stern-board. When a vessel goes stern foremost.
By the board. Said of masts, when they fall over the side.
- BOAT-HOOK.** An iron hook with a long staff, held in the hand, by which a boat is kept fast to a wharf, or vessel.
- BOATSWAIN.** (Pronounced *bo'-n*.) A warrant officer in the navy, who has charge of the rigging, and calls the crew to duty.
- BONSTAYS.** Used to confine the bowsprit down to the stem or cutwater.

- BOLSTERS.** Pieces of soft wood, covered with canvas, placed on the trestle-trees, for the eyes of the rigging to rest upon.
- BOLTS.** Long cylindrical bars of iron or copper, used to secure or unite the different parts of a vessel.
- BOLT-ROPE.** The rope which goes round a sail, and to which the canvas is sewed.
- BONNET.** An additional piece of canvas attached to the foot of a jib, or a schooner's foresail, by lacing. Taken off in bad weather.
- BOOM.** A spar used to extend the foot of a fore-and-aft sail or studdingsail.
Boom-irons. Iron rings on the yards, through which the studdingsail booms traverse.
- BOOR-TOPPING.** Scraping off the grass, or other matter, which may be on a vessel's bottom, and daubing it over with tallow, or some mixture.
- BOUND.** Wind-bound. When a vessel is kept in port by a head wind.
- BOW.** The rounded part of a vessel, forward.
- BOWER.** A working anchor, the cable of which is bent and reeved through the hawse-hole.
Best bower is the larger of the two lowers. (See page 4.)
- BOW-GRACE.** A frame of old rope or junk, placed round the bows and sides of a vessel, to prevent the ice from injuring her.
- BOWLINE.** (Pronounced *bo'-lin*.) A rope leading forward from the leach of a square sail, to keep the leach well cut, when sailing close-hauled. A vessel is said to be *on a bowline*, or *on a taut bowline*, when she is close-hauled.
- Bowline-bridle.** The spawl on the leach of the sail to which the bowline is toggled.
- Bowline-knot.** (See PLATE 5 and page 81.)
- BOWSE.** To pull upon a tackle.
- BOWSPRIT.** (Pronounced *bo'-sprit*.) A large and strong spar, standing from the bows of a vessel. (See PLATE 1.)
- BOX-HAULING.** Wearing a vessel by backing the head sails. (See page 52.)
- BOX.** To box the compass is to repeat the thirty-two points of the compass in order.
- BRACE.** A rope by which a yard is turned about.
To brace a yard, is to turn it about horizontally.
To brace up, is to lay the yard more fore-and-aft.
To brace in, is to lay it nearer square.
To brace aback. (See ABACK.)
To brace to, is to brace the head yards a little aback, in tacking or wearing.
- BRAILS.** Ropes by which the foot or lower corners of fore-and-aft sails are hauled up.
- BRACE.** The handle of a ship's pump.
- BREAK.** To break bulk, is to begin to unload.
To break ground, is to lift the anchor from the bottom.
To break sheer, is when a vessel, at anchor, in tending, is forced the wrong way by the wind or current, so that she does not lie so well for keeping herself clear of her anchor.
- BREAKER.** A small cask containing water.
- BREAMING.** Cleaning a ship's bottom by burning.
- BREAST-FAST.** A rope used to confine a vessel sideways to a wharf, or to some other vessel.
- BREAST-HOOKS.** Knees placed in the forward part of a vessel, across the stem, to unite the bows on each side. (See PLATE 3.)
- BREAST-ROPE.** A rope passed round a man in the chains, while sounding.
- BREECH.** The outside angle of a knee-timber. The after end of a gun.
- BRECHING.** A strong rope used to secure the breech of a gun to the ship's side.
- BREIDLE.** Spans of rope attached to the leaches of square sails, to which the bowlines are made fast.
- Briddle port.** The foremost port, used for stowing the anchors.

- BRIG.** A square-rigged vessel, with two masts. An *hermaphrodite brig* has a brig's foremast and a schooner's mainmast. (See PLATE 4.)
- BROAD-RO.** To fall off so much, when going free, as to bring the wind round on the other quarter and take the sails aback.
- BROADSIDE.** The whole side of a vessel.
- BROKEN-HAULER.** The state of a vessel when she is so loosened as to droop at each end.
- BUCKLERS.** Blocks of wood made to fit in the hawse-holes, or holes used in the half-ports, when at sea. These in the hawse-holes are sometimes called *haws-blocks*.
- BULGE.** (See *BILGE*.)
- BULK.** The whole cargo when stowed.
Stowed in *bulk*, is when goods are stowed loose, instead of being stowed in casks or bags. (See *BREAK BULK*.)
- BULK-HEAD.** Temporary partitions of boards to separate different parts of a vessel.
- BULL.** A sailor's term for a small keg, holding a gallon or two.
- BULL'S-EYE.** (See page 34.) A small piece of stout wood with a hole in the centre for a stay or rope to reeve through, without any sheave, and with a groove round it for the stay, which is usually of iron. Also, a piece of thick glass inserted in the deck to let light below.
- BULWARKS.** The wood work round a vessel, above her deck, consisting of boards fastened to stanchions and timber-heads.
- BUM-BOATS.** Boats which lie alongside a vessel in port with provisions and fruit to sell.
- BUMPKIN.** Pieces of timber projecting from the vessel, to board the fore tack to; and from each quarter, for the main brace-blocks.
- BUNT.** The middle of a sail.
- BUNTLIN.** (Pronounced *buntin*.) Tain woollen stuff of which a ship's colours are made.
- BUNTLINES.** Ropes used for hauling up the body of a sail.
- BUOY.** A floating cask, or piece of wood, attached by a rope to an anchor, to shew its position. Also, floated over a shoal, or other dangerous place, as a beacon.
To stream a buoy, is to drop it into the water before letting go the anchor.
A buoy is said to *watch*, when it floats upon the surface of the water.
- BURTON.** A tackle, rove in a particular manner.
A single Spanish *burton*, has three single blocks, or two single blocks and a hook in the bight of one of the running parts.
A double Spanish *burton* has three double blocks. (See page 55.)
- BUTT.** The end of a plank where it unites with the end of another.
Scuttle-butt. A cask with a hole cut in its bidge, and kept on deck to hold water for daily use.
- BUTTOCK.** That part of the convexity of a vessel's stern, under the stern, contained between the counter above and the after part of the bilge below, and between the quarter on the side and the stern-post. (See PLATE 3.)
- By the head.** Said of a vessel when her head is lower in the water than her stern. If her stern is lower, she is *by the stern*.
By the lee. (See *LEE*. See *RUN*.)

- CABIN.** The after part of a vessel, in which the officers live.
- CABLE.** A large, strong rope, made fast to the anchor, by which the vessel is secured. It is usually 120 fathoms in length.
- CABLE-TIER.** (See *TIER*.)
- CABOOSH.** A house on deck, where the cooking is done. Commonly called the *Galleen*.
- CALK.** (See *CAULK*.)
- CAMBERED.** When the floor of a vessel is higher at the middle than towards the stem and stern.

- CAMEL.** A machine used for lifting vessels over a shoal or bar.
- CAMFERING.** Taking off an angle or edge of a timber.
- CAN-HOOKS.** Slings with flat hooks at each end, used for hoisting barrels or light casks, the hooks being placed round the chimes, and the purchase hooked to the centre of the slings. Small ones are usually wholly of iron.
- CANT-PIECES.** Pieces of timber fastened to the angles of fishes and side-trees, to supply any part that may prove rotten.
- CANT-TIMBERS.** Timbers at the two ends of a vessel, raised obliquely from the keel.
Lower Half Cants. Those parts of frames situated forward and abaft the square frames, or the floor timbers which cross the keel.
- CANVAS.** The cloth of which sails are made. No. 1 is the coarsest and strongest.
- CAP.** A thick, strong block of wood with two holes through it, one square and the other round, used to confine together the head of one mast and the lower part of the mast next above it. (See PLATE 1.)
- CAPSIZE.** To overturn.
- CAPSTAN.** A machine placed perpendicularly in the deck, and used for a strong purchase in heaving or hoisting. Men-of-war weigh their anchors by capstans. Merchant vessels use a windlass. (See *BAR*.)
- CAREEN.** To heave a vessel down upon her side by purchases upon the masts. To lie over, when sailing on the wind.
- CARLINGS.** Short and small pieces of timber running between the beams.
- CARRICK-BEND.** A kind of knot. (See PLATE 5 and page 31.)
Carrick-bitts are the windlass bitts.
- CARRY-AWAY.** To break a spar, or part a rope.
- CASE.** To pay a vessel's head off, in getting under way, on the tack she is to sail upon.
- CAT.** The tackle used to hoist the anchor up to the cat-head.
Cat-block, the block of this tackle.
- CAT-HARPIN.** An iron leg used to confine the upper part of the rigging to the mast.
- CAT-HEAD.** Large timbers projecting from the vessel's side, to which the anchor is raised and secured.
- CAT'S-PAW.** A kind of hitch made in a rope. (See PLATE 5 and page 31.) A light current of air seen on the surface of the water during a calm.
- CAULK.** To fill the seams of a vessel with oakum.
- CAVIL.** (See *KEVEL*.)
- CEILING.** The inside planking of a vessel.
- CHAFE.** To rub the surface of a rope or spar.
Chafing-gear is the stuff put upon the rigging and spars to prevent their chafing.
- CHAINS.** (See PLATE 1.) Strong links or plates of iron, the lower ends of which are bolted through the ship's side to the timbers. Their upper ends are secured to the bottom of the dead-eyes in the channels. Also, used familiarly for the *CHANNELS*, which see. The chain cable of a vessel is called familiarly her *chain*.
Rudder-chains lead from the outer and upper end of the rudder to the quarters. They are hung slack.
- CHAIN-PLATES.** Plates of iron bolted to the side of a ship, to which the chains and dead-eyes of the lower rigging are connected.
- CHANNELS.** Broad pieces of plank bolted edgewise to the outside of a vessel. Used for spreading the lower rigging. (See *CHAINS*.)
- CHAPPELLING.** Wearing a ship round, when taken aback, without bracing the head yards. (See page 55.)
- CHECK.** A term sometimes used for slacking off a little on a brace, and then belaying it.
- CHEERS.** The projections on each side of a mast, upon which the trestle-trees rest. The sides of the shell of a block.
- CHEERY!** Quickly, with a will.

- CHESS-TIMES.** Pieces of oak, fitted to the sides of a vessel abaft the fore chains, with a sheave in them, to board the main tack to. Now out of use.
- CHIMES.** The ends of the staves of a cask, where they come out beyond the head of the cask.
- CHINSE.** To thrust oakum into seams with a small iron.
- CHOOK.** A wedge used to secure anything with, or for anything to rest upon. The long boat rests upon two large *chooks* when it is stowed.
- Chock-a-block.** When the lower block of a tackle is run close up to the upper one, so that you can hoist no higher. This is also called hoisting up *two-blocks*.
- CISTERN.** An apartment in the hold of a vessel, having a pipe leading out through the side, with a cock, by which water may be let into her.
- CLAMPS.** Thick planks on the inside of vessels, to support the ends of beams. Also, crooked plates of iron forelocked upon the trunnions of cannon. Any plate of iron made to turn, open, and shut so as to confine a spar or boom, as, a studding-sail boom, or a boat's mast.
- CLASP-HOOK.** (See *CLOVE-HOOK*.)
- CLBAT.** A piece of wood used in different parts of a vessel to belay ropes to.
- CLEW.** The lower corner of square sails, and the after corner of a fore-and-aft sail.
- To clew up,** is to haul up the clew of a sail.
- CLEW-GARNET.** A rope that hauls up the clew of a foresail or mainsail in a square-rigged vessel.
- CLEWLINE.** A rope that hauls up the clew of a square sail. The *clew-garnet* is the clewline of a course.
- CLINCH.** A half-hitch, stopped to its own part.
- CLOSE-HAULED.** Applied to a vessel which is sailing with her yards braced up so as to get as much as possible to windward. The same as *on a taut bowline, full and by, on the wind, &c.*
- CLOVE-HITCH.** Two half-hitches round a spar or other rope. (See *PLATE 5* and page 30.)
- CLOVE-HOOK.** An iron clasp, in two parts, moving upon the same pivot, and overlapping one another. Used for bending chain sheets to the clews of sails.
- CLOB-HAUL.** To bring a vessel's head round on the other tack, by letting go the lee anchor and cutting or slipping the cable. (See page 55.)
- CLUBBING.** Drifting down a current with an anchor out. (See page 55.)
- COAZING.** Joining pieces of spar by means of tenon projections, formed by cutting away the solid of one piece into a hollow, so as to make a projection in the other, in such a manner that they may correctly fit, the butts preventing the pieces from drawing asunder.
- Coaks** are fitted into the beams and knees of vessels to prevent their drawing.
- COAL-TAR.** Tar made from bituminous coal.
- COAKINGS.** Raised work round the hatches, to prevent water going down into the hold.
- COAT.** Mast-Coat is a piece of canvas, tarred or painted, placed round a mast or bowsprit where it enters the deck.
- COCK-BILL.** To cock-bill a yard or anchor. (See *A-COCK-BILL*.)
- COCK-PIT.** An apartment in a vessel of war, used by the surgeon during an action.
- COOLINE.** An eighteen thread line.
- COXWAIN.** (Pronounced *cox'n*.) The person who steers a boat and has charge of her.
- COIL.** To lay a rope up in a ring, with one turn or fake over another. A *coil* is a quantity of rope laid up in that manner.
- COLLAR.** An eye in the end or bight of a shroud or stay, to go over the mast-head.
- COME.** *Come home*, said of an anchor when it is broken from the ground and drags.
- To come up** a rope or tackle is to slack it off.

- COMPANION.** A wooden covering over the staircase to a cabin.
- Companion-way,** the staircase to the cabin.
- Companion-ladder,** the ladder leading from the poop to the main deck.
- COMPASS.** The instrument which tells the course of a vessel.
- Compass-timbers** are such as are curved or arched.
- CONCLUDING-LINE.** A small line leading through the centre of the steps of a rope or Jacob's ladder.
- CONNING, or CUNNING.** Directing the helmsman in steering a vessel.
- COUNTER.** (See *PLATE 3*.) That part of a vessel between the bottom of the stern and the wing-transom and buttock.
- Counter-timbers** are short timbers put in to strengthen the counter.
- To counter-brace yards,** is to brace the head-yards one way and the after-yards another.
- COURSES.** The common term for the sails that hang from a ship's lower yards. The foresail is called the *forecourse* and the mainsail the *maincourse*.
- CRANES.** Pieces of iron or timber at the vessel's sides, used to stow boats or spars upon. A machine used at a wharf for hoisting.
- CRANK.** The condition of a vessel when she is inclined to lean over a great deal and cannot bear much sail. This may be owing to her construction or to her stowage.
- CRAWLER.** An iron instrument, like a grapple, with four claws, used for dragging the bottom of a harbour or river, to find anything lost.
- CRINGLE.** A short piece of rope with each end spliced into the bit-ropes of a sail, confining an iron ring or thimble.
- CROSS-BARS.** Round bars of iron, bent at each end, used as levers to turn the shank of an anchor.
- CROSS-CHOCKS.** Pieces of timber fayed across the dead-wood amidships, to make good the deficiency of the heels of the lower futtocks.
- CROSS-JACK.** (Pronounced *croj-jack*.) The cross-jack yard is the lower yard on the mizzenmast. (See *PLATE 1*.)
- CROSS-PAWLS.** Pieces of timber that keep a vessel together while in her frames.
- CROSS-PIECE.** A piece of timber connecting two bits.
- CROSS-SPARKS.** Pieces of timber placed across a vessel, and nailed to the frames, to keep the sides together until the knees are bolted.
- CROSS-TIMES.** (See *PLATE 1*.) Pieces of oak supported by the cheeks and trestle-trees, at the mast-heads, to sustain the tops on the lower mast, and to spread the topgallant rigging at the topmast-head.
- CROW-TOON.** A number of small lines rove through the uvron to suspend an awning by.
- CROWN of an anchor,** is the place where the arms are joined to the shank.
- To crown a knot,** is to pass the strands over and under each other above the knot. (See *PLATE 6*, page 25.)
- CRUTCH.** A knee or piece of knee-timber, pinned inside of a vessel, to secure the back of the seat-timbers round. Also, the chock upon which the spunker-boom rests when the sail is not set.
- CUCKOLD'S KNEE.** A knot by which a rope is secured to a spar, the two parts of the rope crossing each other, and seized together.
- CUNDR.** A cabin in the fore part of a boat.
- CUNTLINE.** The space between the bilges of two casks, stowed side by side. Where one cask is set upon the cuncline between two others, they are stowed *bilge and cuncline*.
- CUT-WATER.** The foremost part of a vessel's prow, which projects forward of the bows.
- CUTTER.** A small boat. Also, a kind of sleep.
- DAgger.** A piece of timber crossing all the puppets of the bilge-ways to keep them together.
- Dagger-knees.** Knees placed obliquely, to avoid a port.
- DAVITS.** Pieces of timber or iron, with sheaves or blocks at their ends, projecting over a vessel's sides or stern, to hoist boats up to. Also, a spar

- with a roller or sheave at its end, used for fishing the anchor, called a *fish-davit*.
- DEAD-EYE.** A circular block of wood, with three holes through it, for the lanyards of rigging to reeve through, without sheaves, and with a groove round it for an iron strap. (See page 59.)
- DEAD-FLAT.** One of the bends, amidships.
- DEAD-LIGHTS.** Ports placed in the cabin windows in bad weather.
- DEAD-RECKONING.** A reckoning kept by observing a vessel's courses and distances by the log, to ascertain her position.
- DEAD-RISING, or RISING-LINE.** Those parts of a vessel's floor, throughout her whole length, where the floor-timber is terminated upon the lower futtock.
- DEAD-WATER.** The eddy under a vessel's counter.
- DEAD-WOOD.** Blocks of timber, laid upon each end of the keel, where the vessel narrows.
- DECK.** The planked floor of a vessel, resting upon her beams.
- DECK-STOPPER.** A stopper used for securing the cable forward of the windlass or capstan, while it is overhauled. (See **STOPPER**.)
- DEEP-SEA-LEAD.** (Pronounced *dipsy*.) (See page 6.) The lead used in sounding at great depths.
- DEPARTURE.** The easting or westing made by a vessel. The bearing of an object on the coast from which a vessel commences her dead reckoning.
- DERICK.** A single spar, supported by stays and guys, to which a purchase is attached, used to unload vessels, and for hoisting.
- DOG.** A short iron bar, with a fang or teeth at one end, and a ring at the other. Used for a purchase, the fang being placed against a beam or knee, and the block of a tackle hooked to the ring.
- DOG-YANZ.** A small vane, made of feathers or buntin, to shew the direction of the wind.
- DOG-WATCHES.** Half watches of two hours each, from 4 to 6 and from 6 to 8 P.M. (See **WATCH**.)
- DOLPHIN.** A rope or strap round a mast to support the puddening, where the lower yards rest in the slings. Also, a spar or buoy with a large ring in it, secured to an anchor, to which vessels may bend their cables.
- DOLPHIN-STRIKER.** The martingale. (See **PLATZ 1.**)
- DOUSE.** To lower suddenly.
- DOWELLING.** A method of coaking, by letting pieces into the solid, or uniting two pieces together by tenons.
- DOWNHAUL.** A rope used to haul down jibs, staysails, and studdingsails.
- DRABLER.** A piece of canvas laced to the bonnet of a sail, to give it more drop.
- DRAE.** A machine with a bag net, used for dragging on the bottom for anyvaling lost.
- DRAUGHT.** The depth of water which a vessel requires to float her.
- DRAW.** A sail *draws* when it is filled by the wind.
To *draw a jib*, is to shift it over the stay to leeward when it is aback.
- DRIFTS.** Those pieces in the sheer-draught where the rails are cut off.
- DRIFT.** To sound before a gale, or to drift in a current.
- DRIVER.** A spanker.
- DROP.** The depth of a sail, from head to foot, amidships.
- DRUM-HEAD.** The top of the capstan.
- DUB.** To reduce the end of a timber.
- DUCK.** A kind of cloth, lighter and nner than canvas; used for small sails.
- DUNNAGE.** Loose wood or other matters, placed on the bottom of the hold, above the ballast, to stow cargo upon.

- EARING.** A rope attached to the cringle of a sail, by which it is bent or reefed.
- EIRING.** A piece of wood fitted to make good a deficiency in length.
- ELBOW.** Two crosses in a hawse. (See page 63.)
- ESCUTCHEON.** The part of a vessel's stern where her name is written.
- EVEN-KEEL.** The situation of a vessel when she is so trimmed that she sits evenly upon the water, neither end being down more than the other.

- EVROU.** A piece of wood, by which the legs of the crow-foot to an awning are extended. (See **UVROU**.)
- EYE.** The circular part of a shroud or stay, where it goes over a mast.
- EYE-BOLT.** A long iron bar, having an eye at one end, driven through a vessel's deck or side into a timber or beam, with the eye remaining out, to hook a tackle to. If there is a ring through this eye, it is called a *ring-bolt*.
- AN EYE-SPLICE** is a certain kind of splice made with the end of a rope. (See **PLATZ 5** and page 27.)
- EYELET-HOLE.** A hole made in a sail for a cringle or roband to go through. *The Eyes of a Vessel.* A familiar phrase for the forward part.
- FACE-PIECES.** Pieces of wood wrought on the fore part of the knees of the head.
- FACING.** Letting one piece of timber into another with a rabbit.
- FAG.** A rope is *fagged* when the end is untwisted.
- FAIR-LEADER.** A strip of board or plank, with holes in it, for running rigging to lead through. Also, a block or timber used for the same purpose.
- FAKE.** One of the circles or rings made in coiling a rope.
- FALL.** That part of a tackle to which the power is applied in hoisting.
- FALSE KEEL.** Pieces of timber secured under the main keel of vessels.
- FANCY-LINE.** A line rove through a block at the jaws of a gaff, used as a down-haul. Also, a line used for cross-hauling the lee topping-lift.
- FASHION-PIECES.** The aftermost timbers, terminating the breadth and forming the shape of the stern.
- FAST.** A rope by which a vessel is secured to a wharf. There are *bow or head, breast, quarter, and stern fasts*.
- FATHOM.** Six feet.
- FEATHER.** To *feather an oar* in rowing, is to turn the blade horizontally with the top cut as it comes out of the water.
- FEATHER-EDGED.** Planks which have one side thicker than another.
- FENDERS.** Pieces of rope or wood hung over the side of a vessel or boat, to protect it from chafing. The fenders of a neat boat are usually made of canvas and stuffed.
- FID.** A block of wood or iron, placed through the hole in the heel of a mast, and resting on the brestle-trees of the mast below. This supports the mast. Also, a wooden pin, tapered, used in splicing large ropes, in opening eyes, &c.
- FIDDLE-BLOCK.** A long shell, having one sheave over the other, and the lower smaller than the upper.
- FIDDLE-HEAD.** (See **HEAD**.)
- PIPE-RAIL.** The rail going round a mast.
- FIGURE-HEAD.** A carved head or full-length figure, over the cut-water.
- FILLINGS.** Pieces of timber used to make the curve fair for the mouldings, between the edges of the fish-front and the sides of the mast.
- FILLER.** (See **MADE MAST**.)
- FINISHING.** Carved ornaments of the quarter-gallery, below the second counter, and above the upper lights.
- FISH.** To raise the flukes of an anchor upon the gunwale. Also, to strengthen a spar when sprang or weakened, by putting in or fastening on another piece.
- FISH-FRONT, Fishes-sides.** (See **MADE MAST**.)
- FISH-DAVIT.** The davit used for fishing an anchor.
- FISH-HOOK.** A hook with a pennant, to the end of which the fish-tackle is hooked.
- FISH-TACKLE.** The tackle used for fishing an anchor.
- FLARE.** When the vessel's sides go out from the perpendicular. In opposition to *falling-home* or *tumbling-in*.
- FLAT.** A sheet is said to be hauled flat, when it is hauled down close. *Flat-aback*, when a sail is blown with its after surface against the mast.
- FLEET.** To come up a tackle and draw the blocks apart, for another pull, after they have been hauled *two-blocks*.

- Fleet ho!** The order given at such times. Also, to shift the position of a block or fall, so as to haul to more advantage.
- FLEMISH-COIL.** (See FRENCH FAKE.)
- FLEMISH-KYE.** A kind of eye-splice. (See PLATE 5 and page 27.)
- FLEMISH-MORSH.** An additional foot-rope at the ends of topsail-yards.
- FLOOR.** The bottom of a vessel, on each side of the keelson.
- FLOOR-TIMBERS.** Those timbers of a vessel which are placed across the keel. (See PLATE 3.)
- FLOWING SHEET.** When a vessel has the wind free, and the lee clews eased off.
- FLUKES.** The broad triangular plates at the extremity of the arms of an anchor, terminating in a point called the *bill*.
- FLY.** That part of a flag which extends from the Union to the extreme end. (See UNION.)
- FOOT.** The lower end of a mast or sail. (See FORE-FOOT.)
- FOOT-ROPE.** The rope stretching along a yard, upon which men stand when reefing or furling, formerly called *horses*.
- FOOT-WALING.** The inside planks or lining of a vessel, over the floor-timbers.
- FORE.** Used to distinguish the forward part of a vessel, or things in that direction; as, *fore mast, fore hatch*, in opposition to *aft* or *after*.
- FORE-AND-AFT.** Lengthwise with the vessel. In opposition to *athwartships*. (See SAILS.)
- FORECASTLE.** That part of the upper deck forward of the foremast; or, as some say, forward of the after part of the forechannels. (See PLATE 1.) Also, the forward part of the vessel, under the deck, where the sailors live, in merchant vessels.
- FORE-FOOT.** A piece of timber at the forward extremity of the keel, upon which the lower end of the stem rests. (See PLATE 3.)
- FORE-GANGER.** A short piece of rope grafted on a harpoon, to which the line is bent.
- FORE-LOCK.** A flat piece of iron, driven through the end of a bolt, to prevent its drawing.
- FOREMAST.** The forward mast of all vessels. (See PLATE 1.)
- FOREMATCH.** To shoot ahead, especially when going in stays.
- FORERUNNER.** A piece of rag, terminating the stay-line of the top-line.
- FORGE.** To *forge ahead*, to shoot ahead; as, in coming to anchor, after the sails are furled. (See FOREMATCH.)
- FORZELS.** Pieces of wood used for shaping cartridges or wads.
- FOTHER, or FODDER.** To draw a sail, filled with oakum, under a vessel's bottom, in order to stop a leak.
- FOUL.** The term for the opposite of clear.
- FOUL ANCHOR.** When the cable has a turn round the anchor.
- FOUL HAWSE.** When the two cables are crossed or twisted, outside the stem.
- FOUNDER.** A vessel founders, when she fills with water and sinks.
- FOX.** (See page 55.) Made by twisting together two or more rope-yarns. A Spanish fox is made by untwisting a single yarn and laying it up the contrary way.
- FRAP.** To pass ropes round a sail to keep it from blowing loose. Also, to draw ropes round a vessel which is weakened, to keep her together.
- FREE.** A vessel is going *free* when she has a fair wind and her yards braced in. A vessel is said to be *free*, when the water has been pumped out of her.
- FRESHEN.** To relieve a rope, by moving its place; as, to *freshen the rig* of a stay, is to shift it, so as to prevent its chafing through. To *freshen ballast*, is to alter its position.
- FRENCH FAKE.** To coil a rope with each fake outside of the other, beginning in the middle. If there are to be riding fakes, they begin outside and go in; and so on. This is called a *Flemish coil*.
- FULL-AND-BY.** Failing close-hauled on a wind.
- Full-and-by!** The order given to the man at the helm to keep the sails full and at the same time close to the wind.
- FURL.** To roll a sail up snugly on a yard or boom, and secure it.
- FUTTOCK-PLATES.** Iron plates crossing the sides of the top-rim perpendicularly.

- The dead-eyes of the topmast rigging are fitted to their upper ends, and the futtock-shrouds to their lower ends.
- FUTTOCK-SHROUDS.** Short shrouds, leading from the lower ends of the futtock-plates to a bend round the lowermast just below the top.
- FUTTOCK-STAFF.** A short piece of wood or iron, seized across the upper part of the rigging, to which the catharpin legs are secured.
- FUTTOCK-TIMBERS.** (See PLATE 3.) Those timbers between the floor and naval timbers, and the top-timbers. There are two—the *lower*, which is over the floor, and the *middle*, which is over the naval timber. The naval timber is sometimes called the *ground futtock*.
- GAFF.** A spar, to which the head of a fore-and-aft sail is bent. (See PLATE 1.)
- GAFF-TOPSAIL.** A light sail set over a gaff, the foot being spread by it.
- GAGE.** The depth of water of a vessel. Also, her position as to another vessel, as having the *weather* or *lee gage*.
- GALLEY.** The place where the cooking is done.
- GALLOW-BYTES.** A strong frame raised amidships, to support spare spars, &c., in port.
- GAMMONING.** (See PLATE 1.) The lashing by which the bowsprit is secured to the cut-water.
- GANG-OXES.** Small casks, used for bringing water on board in boats.
- GANGWAY.** (See PLATE 1.) That part of a vessel's side, amidships, where people pass in and out of the vessel.
- GANTLINE.** (See GANTLINE.)
- GARBOARD-STRAKE.** (See PLATE 3.) The range of planks next the keel, on each side.
- GARLAND.** A large rope, strap, or grommet, lashed to a spar when hoisting it inboard.
- GARNET.** A purchase on the mainstay, for hoisting cargo.
- GASKETS.** Ropes or pieces of plated stuff, used to secure a sail to the yard or boom when it is furled. They are called a *bunt, quarter, or yard-arm gasket*, according to their position on the yard.
- GRINDER.** To turn an anchor round by its stock. To turn anything round on its end.
- GIRT.** The situation of a vessel when her cables are too taut.
- GIRTLINE.** A rope rove through a single block aloft, making a whip purchase. Commonly used to hoist rigging by, in fitting it.
- GIYA WAY!** An order to men in a boat to pull with more force, or to begin pulling. The same as, *Lay out on your oars!* or, *Lay out!*
- GLUE.** A piece of canvas sewed into the centre of a sail near the head. It has an eye-hole in the middle for the bunt-jigger or becket to go through.
- GOD-LINE, or GAUD-LINE.** A rope leading from the martingale inboard. The same as *back-rope*.
- GOODGRON.** (See GOODGRON.)
- GOOSE-NECK.** An iron ring fitted to the end of a yard or boom, for various purposes.
- GOOSE-WINGARD.** The situation of a course when the buntlines and lee clew are hauled up, and the weather clew down.
- GORES.** The angles at one or both ends of such cloths as increase the breadth or depth of a sail.
- GORING-CLOTHS.** Pieces cut obliquely and put in to add to the breadth of a sail.
- GRAFTING.** (See page 55.) A manner of covering a rope by weaving together yarns.
- GRAINS.** An iron with four or more barbed points to it, used for striking small fish.
- GRAPNEL.** A small anchor with several claws, used to secure boats.
- GRAPPLING IRONS.** Crooked irons, used to seize and hold fast another vessel.
- GRATING.** Open lattice-work of wood. Used principally to cover hatches in good weather.
- GREAVE.** To clean a ship's bottom by burning.

- GRIPPE.** The outside timber of the fore-foot, under water, fastened to the lower stem-piece. (See PLATE 2.) A vessel grips when she tends to come up into the wind.
- GRIPES.** Bars of iron, with lanyards, rings, and claws, by which a large boat is lashed to the ring-bolts of the deck. Those for a quarter-boat are made of long strips of matting, going round her and set taut by a lanyard.
- GROMMET.** (See PLATE 5 and page 28.) A ring formed of rope, by laying round a single strand.
- GROUND-TACKLE.** General term for anchors, cables, warps, springs, &c., everything used in securing a vessel at anchor.
- GROUND-TIER.** The lowest tier of casks in a vessel's hold.
- GUESS-WARP, or GUESS-ROPE.** A rope fastened to a vessel or wharf, and used to tow a boat by; or to haul it out to the swinging-boomend, when in port.
- GUN-TACKLE PURCHASE.** A purchase made by two single blocks. (See page 51.)
- GUNWALE.** (Pronounced *gun-awl*.) The upper rail of a boat or vessel.
- GUY.** A rope attaching to anything to steady it, and bear it one way and another in hoisting.
- GYBE.** (Pronounced *jibe*.) To shift over the boom of a fore-and-aft sail.
- HAIL.** To speak or call to another vessel, or to men in a different part of a ship.
- HALYARDS.** Ropes or tackles used for hoisting and lowering yards, gaffs, and sails.
- HALY-BITCH.** (See PLATE 5 and page 30.)
- HAMMOCK.** A piece of canvas, hung at each end, in which seamen sleep.
- HAND.** To hand a sail is to furl it.
Bear-a-hand; make haste.
Lead-a-hand; assist.
Hand-over-hand; hauling rapidly on a rope, by putting one hand before the other alternately.
- HAND-LEAD.** (See page 4.) A small lead, used for sounding in rivers and harbours.
- HANDSOMELY.** Slowly, carefully. Used for an order, as, "Lower hand-somely!"
- HANDSPIKE.** A long wooden bar, used for heaving at the windlass.
- HANDY BILLY.** A watch-tackle.
- HANKS.** Rings or hoops of wood, rope, or iron, round a stay, and seized to the luff of a fore-and-aft sail.
- HARINOS.** The fore part of the wales, which encompasses the bows of a vessel, and are fastened to the stem. (See PLATE 3.)
- HARPOON.** A spear used for striking whales and other fish.
- HATCH, or HATCHWAY.** An opening in the deck to afford a passage up and down. The coverings over these openings are also called *hatches*.
Hatch-bar is an iron bar going across the hatches to keep them down.
- HAUL.** *Haul her wind*, said of a vessel when she comes up close upon the wind.
- HAWSE.** The situation of the cables before a vessel's stem, when moored. Also, the distance upon the water a little in advance of the stem; as, a vessel sails *astward the hawse*, or anchors *in the hawse* of another.
Open hawse. When a vessel rides by two anchors, without any cross in her cables.
- HAWSE-HOLE.** The hole in the bows through which the cable runs.
- HAWSE-PIECES.** Timbers through which the hawse-holes are cut.
- HAWSE-BLOCK.** A block of wood fitted into a hawse-hole at sea.
- HAWSER.** A large rope used for various purposes, as warping, for a spring, &c.
- HAWSER-LAID, or CABLE-LAID rope,** is rope laid with nine strands against the sun. (See PLATE 5 and page 20.)
- HAZE.** A term for punishing a man by keeping him unnecessarily at work upon disagreeable or difficult duty.
- HEAD.** The work at the prow of a vessel. If it is a carved figure, it is called a *figure-head*; if simple carved work, bending over and out, a *billet-head*;

- and if bending in, like the head of a violin, a *fiddle-head*. Also, the upper end of a mast, called a *mast-head*. (See BY-THE-HEAD. See FART.)
- HEAD-LEDGES.** Thwartship piece that frame the hatchways.
- HEAD-SAILS.** A general name given to all sails that set forward of the fore-mast.
- HEART.** A block of wood in the shape of a heart, for stays to reeve through.
- HEART-YARNS.** The centre yarns of a strand.
- HEAVE SHORT.** To heave in on the cable until the vessel is nearly over her anchor.
- HEAVE-TO.** To put a vessel in the position of lying-to. (See LIE-TO.)
- HEAVE IN STAYS.** To go about in tacking.
- HEAVER.** A short wooden bar, tapering at each end. Used as a purchase.
- HEEL.** The after part of the keel. Also, the lower end of a mast or boom. Also, the lower end of the stern-post.
To heel, is to lie over on one side.
- HEBLING.** The square part of the lower end of a mast, through which the fiddle-hole is made.
- HELM.** The machinery by which a vessel is steered, including the rudder, tiller, wheel, &c. Applied more particularly, perhaps, to the tiller.
- HELM-PORT.** The hole in the counter through which the rudder-head passes.
- HELM-PORT-TRANSOM.** A piece of timber placed across the lower counter, inside, at the height of the helm-port, and bolted through every timber, for the security of that port. (See PLATE 3.)
- EDGE AND DRY.** The situation of a vessel when she is aground, above water mark.
- HITCH.** A peculiar manner of fastening ropes. (See PLATE 5, and page 30.)
- HOG.** A flat, rough broom, used for scrubbing the bottom of a vessel.
- HOGGED.** The state of a vessel when, by any strain, she is made to droop at each end, bringing her centre up.
- HOLD.** The interior of a vessel, where the cargo is stowed.
- HOLD-WATER.** To stop the progress of a boat by keeping the oar-blades in the water.
- HOLY-STONE.** A large stone, used for cleaning a ship's decks.
- HOMES.** The sheets of a sail are said to be *homes*, when the clews are hauled cheek out to the sheave-holes. An anchor *comes home* when it is loosened from the ground and is hove in toward the vessel.
- HOOD.** A covering for a companion hatch, skylight, &c.
- HOOD-ENDS, or HOODING-ENDS, or WHODDEN-ENDS.** Those ends of the planks which fit into the rabbets of the stem or stern-post.
- HOOK-AND-BUTT.** The scarfing, or laying the ends of timbers over each other.
- HORNS.** The jaws of beams. Also, the ends of cross-trees.
- HOUSE.** (See FOOT-ROPE.)
- HOUSE.** Those projections at the mast-head serving as shoulders for the top or trussle-trees to rest upon.
- HOUSE.** To *house* a mast is to lower it about half its length, and secure it by lashing its heel to the mast below. (See page 21.)
To house a gun, is to run it in clear of the port and secure it.
- HOUSING, or HOUSE-LINE.** (Pronounced *houze-lin*.) A small cord made of three small yarns, and used for seizings.
- HULL.** The body of a vessel. (See A-HULL.)
- IN-AND-OUT.** A term sometimes used for the scantling of the timbers, the moulding way, and particularly for those bolts that are driven into the hanging and lodging knees, through the sides, which are called *in-and-out bolts*.
- INNER-POST.** A piece brought on at the fore side of the main-post, and generally continued as high as the wing-transom, to seat the other transoms upon.
- IRONS.** A ship is said to be *in irons*, when, in working, she will not cast one way or the other.

- JACK.** A common term for the *jack-cross-tree*. (See *UNION*.)
- JACK-BLOCK.** A block used in sending topgallantmasts up and down.
- JACK-CROSS-TREES.** (See *PLATE 1*.) Iron cross-trees at the head of long topgallantmasts.
- JACK-STAFF.** A short staff, raised at the bowsprit cap, upon which the Union Jack is hoisted.
- JACK-STAYS.** Ropes stretched taut along a yard to bend the head of the sail to. Also, long strips of wood or iron, used now for the same purpose.
- JACK-SCREW.** A purchase, used for stowing cotton.
- JACOB'S LADDER.** A ladder made of rope, with wooden steps.
- JAWS.** The inner ends of booms or galls, hollowed in.
- JEZERS.** Tackles for hoisting the lower yards.
- JEWEL-BLOCKS.** Single blocks at the yard-arms, through which the studding-sail halyards lead.
- JIB.** (See *PLATE 2*.) A triangular sail set on a stay, forward. *Flying-jib* sets outside of the jib; and the *jib-o'-jib* outside of that.
- JIBROOM.** (See *PLATE 1*.) The boom, rigged out beyond the bowsprit, to which the tack of the jib is lashed.
- JIGGER.** A small tackle, used about decks or aloft.
- JOLLY-BOAT.** A small boat, usually pointed at the stern.
- JUNK.** Condemned rope, cut up and used for making mats, awabs, oakum, &c.
- JURY-MAST.** A temporary mast, rigged at sea, in place of one lost.
- KECKLING.** Old rope wound round cables, to keep them from chafing. (See *ROUNDING*.)
- KEDGE.** A small anchor, with an iron stock, used for warping. To *keedge*, is to warp a vessel ahead by a kedge and hawser.
- KEEL.** (See *PLATE 3*.) The lowest and principal timber of a vessel, running fore-and-aft its whole length, and supporting the whole frame. It is composed of several pieces, placed lengthwise, and scarfed and bolted together. (See *FALSE KEEL*.)
- KEEL-HAUL.** To haul a man under a vessel's bottom, by ropes at the yard-arms on each side. Formerly practised as a punishment in ships of war.
- KEELSON.** (See *PLATE 3*.) A timber placed over the keel on the floor-timbers, and running parallel with it.
- KENTLEDGE.** Pig-iron ballast, laid each side of the keelson.
- KEVEL, or CAVIL.** A strong piece of wood, bolted to some timber or stanchion, used for belaying large ropes to.
- KEVEL-HEADS.** Timber-heads, used as kevels.
- KINK.** A twist in a rope.
- KAKES.** (See *PLATE 2*.) Crooked pieces of timber, having two arms, used to connect the beams of a vessel with her timbers. (See *LAGGER*.)
- Lodging-kevels*, are placed horizontally, having one arm bolted to a beam, and the other across two of the timbers.
- Knee of the head*, is placed forward of the stem, and supports the figure-head.
- KNIPT-HEADS, or BOLLARD-TIMBERS.** The timbers next the stem on each side, and continued high enough to form a support for the bowsprit. (See *PLATE 3*.)
- KNITTLES, or NETTLES.** (See page 32.) The halves of two adjoining yarns in a rope, twisted up together, for pointing or grafting. Also, small line used for seizings and for hammock-clews.
- KNOCK-OFF!** An order to leave off work.
- KNOT.** A division on the log-line, answering to a mile of distance. (See page 5.)
- LABOUR.** A vessel is said to labour when she rolls or pitches heavily.
- LACING.** Rope used to lash a sail to a gaff, or a bonnet to a rail. Also, a piece of compass or knee timber, fayed to the back of the figure-head and the knee of the head, and bolted to each.

- LAND-FALL.** The making land after being at sea. A *good land-fall*, is when a vessel makes the land as intended.
- LAND HO!** The cry used when land is first seen.
- LANYARDS.** Ropes rove through dead-eyes for setting up rigging. Also, a rope made fast to anything to secure it, or as a handle, is called a *lanyard*.
- LARBOARD.** The left side of a vessel, looking forward.
- LARBOARDLINES.** The familiar term for the men in the larboard watch.
- LARGE.** A vessel is said to be going *large*, when she has the wind free.
- LATCHINGS.** Loops on the head rope of a bonnet, by which it is laced to the foot of the sail.
- LAUNCH.** A large boat. The *LONG-BOAT*.
- LAUNCH HO!** High enough!
- LAY.** To come or to go; as, *Lay aloft!* *Lay forward!* *Lay aft!* Also, the direction in which the strands of a rope are twisted; as, from left to right, or from right to left.
- LEACH.** The border or edge of a sail, at the sides.
- LEACHLINE.** A rope used for hauling up the leach of a sail.
- LEAD.** A piece of lead, in the shape of a cone or pyramid, with a small hole at the base, and a line attached to the upper end, used for sounding. (See *HARD-LEAD*, *DEEP-SEA-LEAD*.)
- LEADING-WIND.** A fair wind. More particularly applied to a wind abeam or quartering.
- LEAK.** A hole or breach in a vessel, at which the water comes in.
- LEDGES.** Small pieces of timber placed athwartships under the decks of a vessel, between the beams.
- LEE.** The side opposite to that from which the wind blows; as, if a vessel has the wind on her starboard side, that will be the *weather*, and the larboard will be the *lee* side. A *lee shore* is the shore upon which the wind is blowing. *Under the lee* of anything, is when you have that between you and the wind. *By the lee.* The situation of a vessel, going free, when she has fallen off so much as to bring the wind round her stern, and to take her sails aback on the other side.
- LEE-BOARD.** A board fitted to the lee side of flat-bottomed boats, to prevent their drifting to leeward.
- LEE-GAGE.** (See *GAGE*.)
- LEEWAY.** What a vessel loses by drifting to leeward. When sailing close-hauled with all sail set, a vessel should make no leeway. If the topgallant sails are furled, it is customary to allow one point; under close-reefed topsails, two points; when under one close-reefed sail, four or five points.
- LEEWANGER.** An iron bar, upon which the sheets of fore-and-aft sails traverse. Also, a rope rove through the cringle of a sail which has a bonnet to it, for hauling in, so as to make on the bonnet. Not much used.
- LEEWARD.** (Pronounced *le-ward*.) The lee side. In a direction opposite to that from which the wind blows, which is called *windward*. The opposite of *lee* is *weather*, and of *leeward* is *windward*; the two first being adjectives.
- LIE-TO,** is to stop the progress of a vessel at sea, either by counter-bracing the yards, or by reducing sail so that she will make little or no headway, but will merely come-to and fall-off by the counteraction of the sails and helm.
- LIVE-LINES.** Ropes carried along yards, booms, &c., or at any part of the vessel, for men to hold on to.
- LIFT.** A rope or tackle, going from the yard-arms to the mast-head, to support and move the yard. Also, a term applied to the sails when the wind strikes them on the leaches and raises them slightly.
- LIGHT.** To move or lift anything along; as, to "*Light out to windward!*" that is, haul the sail over to windward. The *light sails* are all above the topsails, also the studding-sails and flying jib.
- LIGHTER.** A large boat, used in loading and unloading vessels.

- LIMBERS, or LINBER-HOLES.** Holes cut in the lower part of the floor-timbers, next the keelson, forming a passage for the water fore-and-aft.
- Limber-boards** are placed over the limbers, and are movable.
- Limber-rope.** A rope rove fore-and-aft through the limbers, to clear them if necessary.
- Limber-streak.** The streak of foot-waling nearest the keelson.
- LIST.** The inclination of a vessel to one side; as, a *list to port*, or a *list to starboard*.
- LIZARD.** A piece of rope, sometimes with two legs, and one or more iron thimbles spliced into it. It is used for various purposes. One with two legs, and a thimble to each, is often made fast to the topsail tye, for the buntlines to reeve through. A single one is sometimes used on the swinging-boom topping-lift.
- LOCKER.** A chest or box, to stow anything away in.
- Chain-locker.* Where the chain cables are kept.
- Boatswain's locker.* Where tools and small stuff for working upon rigging are kept.
- LOG, or LOG-BOOK.** A journal kept by the chief officer, in which the situation of the vessel, winds, weather, courses, distances, and everything of importance that occurs, is noted down.
- Log.* A line with a piece of board, called the *log-chip*, attached to it, wound upon a reel, and used for ascertaining the ship's rate of sailing. (See page 6.)
- LONG-BOAT.** The largest boat in a merchant's vessel. When at sea, it is carried between the fore and main masts.
- LONGERS.** The longest casks, stowed next the keelson.
- LONG-TIMBERS.** Timbers in the cant-bodies, reaching from the dead-wood to the head of the second futtock.
- LOOP.** That part of a vessel where the planks begin to bend as they approach the stern.
- LOOM.** That part of an oar which is within the row-lock. Also, to appear above the surface of the water; to appear larger than nature, as in a fog.
- LUNBER-HOLE.** A hole in the top, next the mast.
- LUFF.** To put the helm so as to bring the ship up nearer to the wind.
- Spring-a-luff! Keep your luff!* Orders to luff. Also, the roundest part of a vessel's bow. Also, the forward leech of fore-and-aft sails.
- LUFF-TACKLE.** A purchase composed of a double and single block. (See page 85.)
- Luff-upon-Luff.* A luff tackle applied to the fall of another.
- LUZZER.** A small vessel carrying lug-sails.
- LUG-SAIL.** A sail used in boats and small vessels, bent to a yard which hangs obliquely to the mast.
- LURCH.** The sudden rolling of a vessel to one side.
- LYING-TO.** (See *LIE-TO*.)
- MADE.** A *made mast* or *block* is one composed of different pieces. A ship's lower mast is a made spar, her topmast is a whole spar.
- MALL, or MAUL.** (Pronounced *maul*.) A heavy iron hammer used in driving bolts. (See *TOP-MAUL*.)
- MALLER.** A small maul, made of wood; as, *caulking-mallet*; also, *serving-mallet*, used in putting service on a rope.
- MANGER.** A coaming just within the hawse hole. Not much in use.
- MAN-ROPE.** Ropes used in going up and down a vessel's side.
- MARL.** To wind or twist a small line or rope round another.
- MARLINE.** (Pronounced *mar-tin*.) Small two-stranded stuff, used for marling.
- A finer kind of spunyarn.
- MARLING-HITCH.** A kind of hitch used in marling.
- MARLINOSPIKE.** An iron pin, sharpened at one end, and having a hole in the other for a lanyard. Used both as a fid and a heaver.
- MARRY.** To join ropes together by a worming over both.

MARTINGALE.

- guying down the head-stays.
- M.** A spar set upright from the deck, to support rigging.
- Masts** are whole or made.
- MAT.** Made of strands of old rope, and used to prevent chafing.
- MATE.** An officer under the master.
- MAUL.** (See *MALL*.)
- MEND.** To mend service, is to add more to it.
- MESSES.** The places between the lines of a netting.
- MESS.** Any number of men, who eat or lodge together.
- MESSENGER.** A rope used for heaving in a cable by the capstan.
- MIDSHIPS.** The timbers at the broadest part of the vessel. (See *AMIDSHIPS*.)
- MIS-STAYS.** To fail of going about from one tack to another. (See page 51.)
- MIZZEN-MAST.** The aftermost mast of a ship. (See *PLATE 1*.) The spanker is sometimes called the mizzen.
- MONKEY BLOCK.** A small single block strapped with a swivel.
- MOON-SAIL.** A small sail sometimes carried in light winds, above a skysail.
- MOON.** To secure by two anchors. (See page 62.)
- MORTICE.** A morticed block is one made out of a whole block of wood with a hole cut in it for the groove; in distinction from a *made block*. (See page 84.)
- MOUNDS.** The patterns by which the frames of a vessel are worked out.
- MOUSE.** To put turns of rope yarn or spunyarn round the end of a hook and its standing part, when it is hooked to anything, so as to prevent its slipping out.
- MOUSING.** A knot or puddening, made of yarns, and placed on the outside of a rope.
- MUFFLE.** Oars are muffled by putting mats or canvas round their looms in the row-locks.
- MUNIONS.** The pieces that separate the lights in the galleries.
- NAVAL HOLES, or HAWSE BOLTS.** Plank above and below the hawse-holes.
- NEAP TIDES.** Low tides, coming at the middle of the moon's second and fourth quarters. (See *SPRING TIDES*.)
- NEARED, or BENEARED.** The situation of a vessel when she is aground at the height of the spring tides.
- NEAR.** Close to wind. "Near!" the order to the helmsman when he is too near the wind.
- NETTING.** Network of rope or small lines. Used for stowing away sails or hammocks.
- NETTLES.** (See *KNETTLES*.)
- NINEPIN BLOCK.** A block in the form of a ninepin, used for a *fair-leader* in the rail.
- NIP.** A short turn in a rope.
- NIPPERS.** A number of yarns marled together, used to secure a cable to the messenger.
- NOCK.** The forward upper end of a sail that sets with a boom.
- NUN-BUOY.** A buoy tapering at each end.
- NUT.** Projections on each side of the shank of an anchor to secure the stock to its place.
- OAKUM.** Stuff made by picking rope-yarns to pieces. Used for caulking and other purposes.
- OAR.** A long wooden instrument with a flat blade at one end, used for propelling boats.
- OFF-AND-ON.** To stand on different tacks towards and from the land.
- OFFING.** Distance from the shore.
- ORLOP.** The lower deck of a ship of the line; or that on which the cables are stowed.
- OUTHAUL.** A rope used for hauling out the clew of a boom sail.
- OUTRIGGER.** A spar rigged out to windward from the tops or cross-trees, to spread the breast-backstays. (See page 11.)

- LIMBERS, or LIMBER-HOLES.** Holes cut in the lower part of the floor-timbers, next the keelson, forming a passage for the water fore-and-aft.
Limber-boards are placed over the limbers, and are movable.
Limber-rope. A rope rove fore-and-aft through the limbers, to clear them if necessary.
Limber-streak. The streak of foot-waling nearest the keelson.
- LIST.** The inclination of a vessel to one side; as, a *list* to port, or a *list* to starboard.
- LIZARD.** A piece of rope, sometimes with two legs, and one or more iron thimbles spliced into it. It is used for various purposes. One with two legs, and a thimble to each, is often made fast to the topsail tye, for the buntlines to reeve through. A single one is sometimes used on the swinging-boom topping-lift.
- LOCKER.** A chest or box, to stow anything away in.
Chain-locker. Where the chain cables are kept.
Boatswain's locker. Where tools and small stuff for working upon rigging are kept.
- LOG, or LOG-BOOK.** A journal kept by the chief officer, in which the situation of the vessel, winds, weather, courses, distances, and everything of importance that occurs, is noted down.
Log. A line with a piece of board, called the *log-chip*, attached to it, wound upon a reel, and used for ascertaining the ship's rate of sailing. (See page 6.)
- LONG-BOAT.** The largest boat in a merchant vessel. When at sea, it is carried between the fore and main masts.
- LONGERS.** The longest casks, stowed next the keelson.
- LONG-TIMBERS.** Timbers in the cant-bodies, reaching from the dead-wood to the head of the second futtock.
- LOOF.** That part of a vessel where the planks begin to bend as they approach the stern.
- LOOM.** That part of an oar which is within the row-lock. Also, to appear above the surface of the water; to appear larger than nature, as in a fog.
- LUNBER'S HOLE.** A hole in the top, next the mast.
- LUFF.** To put the helm so as to bring the ship up nearer to the wind.
Spring-a-luff! Keep your luff! Orders to luff. Also, the roundest part of a vessel's bow. Also, the forward leech of fore-and-aft sails.
- LUFF-TACKLE.** A purchase composed of a double and single block. (See page 65.)
Luff-upon-Luff. A luff tackle applied to the fall of another.
- LUGGER.** A small vessel carrying lug-sails.
Lug-sail. A sail used in boats and small vessels, bent to a yard which hangs obliquely to the mast.
- LURCH.** The sudden rolling of a vessel to one side.
- LIVING-TO.** (See *LIV-TO*.)
- MADE.** A *made mast* or *block* is one composed of different pieces. A ship's lower mast is a made spar, her topmast is a whole spar.
- MALL, or MAUL.** (Pronounced *maul*.) A heavy iron hammer used in driving bolts. (See *TOR-MAUL*.)
- MALLET.** A small maul, made of wood; as, *caulking-mallet*; also, *serving-mallet*, used in putting service on a rope.
- MANOE.** A coaming just within the hawse hole. Not much in use.
- MAN-ROPE.** Ropes used in going up and down a vessel's side.
- MARL.** To wind or twist a small line or rope round another.
- MARLINE.** (Pronounced *mar-lin*.) Small two-stranded stuff, used for marling. A finer kind of spun yarn.
- MARLING-HITCH.** A kind of hitch used in marling.
- MARLINGSPIKE.** An iron pin, sharpened at one end, and having a hole in the other for a lanyard. Used both as a fid and a heaver.
- MARRY.** To join ropes together by a worming over both.

- MARTINGALE.** A short, perpendicular spar, under the bowsprit-end, used for guying down the head-stays. (See *DOLPHIN-STRIKER*.)
- MAST.** A spar set upright from the deck, to support rigging, yards, and sails. Masts are whole or *made*.
- MAT.** Made of strands of old rope, and used to prevent chafing.
- MATE.** An officer under the master.
- MAUL.** (See *MALL*.)
- MEND.** To *mend service*, is to add more to it.
- MESHES.** The places between the lines of a netting.
- MESS.** Any number of men who eat or lodge together.
- MESSANGER.** A rope used for heaving in a cable by the capstan.
- MIDSHIPS.** The timbers at the broadest part of the vessel. (See *AMIDSHIPS*.)
- MIS-STAYS.** To fail of going about from one tack to another. (See page 51.)
- MIZZEN-MAST.** The aftermost mast of a ship. (See *PLATE 1*.) The spanker is sometimes called the mizzen.
- MONKEY BLOCK.** A small single block strapped with a swivel.
- MOON-SAIL.** A small sail sometimes carried in light winds, above a skysail.
- MOON.** To secure by two anchors. (See page 62.)
- MORTICE.** A morticed block is one made out of a whole block of wood with a hole cut in it for the shackle; in distinction from a *made block*. (See page 34.)
- MOULDS.** The patterns by which the frames of a vessel are worked out.
- MOUSE.** To put turns of rope yarn or spun yarn round the end of a hook and its standing part, when it is hooked to anything, so as to prevent its slipping out.
- MOUSING.** A knot or puddening, made of yarns, and placed on the outside of a rope.
- MUFFLE.** Oars are muffled by putting mats or canvas round their looms in the row-locks.
- MUNIONS.** The pieces that separate the lights in the galleries.
- NAVAL HOLES, or HAWSE BOLSTERS.** Plank above and below the hawse-holes.
- NEAP TIDES.** Low tides, coming at the middle of the moon's second and fourth quarters. (See *SPRING TIDES*.)
- NEAPED, or BENAPED.** The situation of a vessel when she is aground at the height of the spring tides.
- NEAR.** Close to wind. "Near!" the order to the helmsman when he is too near the wind.
- NETTING.** Network of rope or small lines. Used for stowing away sails or hammocks.
- NETTLES.** (See *KNITTLES*.)
- NINEPIN BLOCK.** A block in the form of a ninepin, used for a *fair-leader* in the rail.
- NIP.** A short turn in a rope.
- NIPPERS.** A number of yarns marled together, used to secure a cable to the messenger.
- NOCK.** The forward upper end of a sail that sets with a boom.
- NUN-BUOY.** A buoy tapering at each end.
- NUT.** Projections on each side of the shank of an anchor to secure the stock to its place.
- OAKUM.** Stuff made by picking rope-yarns to pieces. Used for caulking and other purposes.
- OAR.** A long wooden instrument with a flat blade at one end, used for propelling boats.
- OFF-AND-ON.** To stand on different tacks towards and from the land.
- OFFING.** Distance from the shore.
- ORLOP.** The lower deck of a ship of the line; or that on which the cables are stowed.
- OUTHAUL.** A rope used for hauling out the clew of a boom sail.
- OUTRIGGER.** A spar rigged out to windward from the tops or cross-trees, to spread the breast-backstays. (See page 11.)

- OVERHAUL.** *To overhaul a tackle*, is to let go the fall and pull on the leading parts so as to separate the blocks.
- To overhaul a rope*, is generally to pull a part through a block so as to make slack.
- To overhaul rigging*, is to examine it.
- OVER-RAKE.** Said of heavy seas which come over a vessel's head when she is at anchor, head to the sea.
- PAINTER.** A rope attached to the bows of a boat, used for making her fast.
- PALM.** A piece of leather fitted over the hand, with an iron for the bend of a needle to press against in sewing upon canvas. Also, the fluke of an anchor.
- PANOR.** (See PAUNCH.)
- PANBUCKLE.** To hoist or lower a spar or cask by single ropes passed round it.
- PARCEL.** (See page 26.) To wind tarred canvas (called *parcelling*) round a rope.
- PARCELLING.** (See PARCEL.)
- PARLIAMENT-HOUL.** The situation of a vessel when she is careened.
- PARRAL.** The rope by which a yard is connected to a mast at its center.
- PART.** To break a rope.
- PARTNERS.** A framework of short timber fitted to the hole in a deck, to receive the heel of a mast or pump, &c.
- PAZAREZ.** A rope attached to the clew of the foresail and rove through a block on the swinging boom. Used for guying the clews out when before the wind.
- PAUNCH MAT.** A thick mat, placed at the slings of a yard or elsewagars.
- PAWL.** A short bar of iron, which prevents the capstan or windlass from turning back.
- To pawl*, is to drop a pawl and secure the windlass or capstan.
- PAY-OFF.** When a vessel's head falls off from the wind.
- To pay.* To cover with tar or pitch.
- To pay out.* To slack up on a cable and let it run out.
- PEAK.** The upper outer corner of a gaff-sail.
- PEAK.** (See A-PEAK.)
- A stay-peak* is when the cable and fore stay form a line.
- A short-stay peak* is when the cable is too much in to form this line.
- PENDANT, or PZKAND.** A long narrow piece of bunting, carried at the mast-head.
- Broad-pendant*, is a square piece, carried in the same way, in a commodore's vessel.
- Pennant.** A rope to which a purchases is hooked. A long strap fitted at one end to a yard or mast-head, with a hook or block at the other end, for a brace to rove through, or to hook a tackle to.
- PILLOW.** A block which supports the inner end of the bowsprit.
- PIN.** The axis on which a sheave turns. Also, a short piece of wood or iron to bely ropes to.
- PINK-STEM.** A high, narrow stern.
- PINNAOE.** A boat, in size between the launch and a cutter.
- PINTLE.** A metal bolt, used for hanging a rudder.
- PITON.** A resin taken from pine, and used for filling up the seams of a vessel.
- PLANKS.** Thick, strong boards, used for covering the sides and decks of vessels.
- PLAT.** A brand of foxes. (See FOX.)
- PLATE.** (See CHAIN-PLATE.)
- PLUG.** A piece of wood, fitted into a hole in a vessel or boat, so as to let in or keep out water.
- POINT.** To take the end of a rope and work it over with knittles. (See page 32. See REEF-POINTS.)
- POLE.** Applied to the highest mast of a ship, usually painted; as, *skysail pole*.
- POOP.** A deck raised over the afterpart of the spar deck. A vessel is *pooped* when the sea breaks over her stern.

- POPPERS.** Perpendicular pieces of timber fixed to the fore-and-aft part of the bilge-ways in launching.
- PORT.** Used instead of *larboard*.
- To port the helm*, is to put it to the larboard.
- PORT, or PORT-HOLE.** Holes in the side of a vessel, to point cannon out of. (See BROAD.)
- PORTOISE.** The gunwale. The yards are *a-portoise* when they rest on the gunwale.
- PORT-SILLS.** (See STILLS.)
- PREVENTER.** An additional rope or spar, used as a support.
- PRICK.** A quantity of spunyarn or rope laid close up together.
- PRICKER.** A small marlinspike, used in sail-making. It generally has a wooden handle.
- PUDDENING.** A quantity of yarns, matting or oakum, used to prevent chafing.
- PUMP-BRAKE.** The handle to the pump.
- PURCHASE.** A mechanical power which increases the force applied.
- To purchase*, is to raise by a purchase.
- QUARTER.** The part of a vessel's side between the after part of the main chain and the stern. The *quarter* of a yard is between the slings and the yard-arm.
- The wind is said to be *quartering*, when it blows in a line between that of the keel and the beam and abaft the latter.
- QUARTER-BLOCK.** A block fitted under the quarters of a yard on each side the slings, for the clewlines and sheets to reeve through.
- QUARTER-DECK.** That part of the upper deck abaft the mainmast.
- QUARTER-MASTER.** A petty officer in a man-of-war, who attends the helm and binnacle at sea, and watches for signals, &c., when in port.
- QUICK-WORK.** That part of a vessel's side which is above the chain-wales and decks. So called in ship-building.
- QUILTING.** A coating about a vessel, outside, formed of ropes woven together.
- QUORN.** A wooden wedge for the breech of a gun to rest upon.
- RACE.** A strong, rippling tide.
- RACZ.** To seize two ropes together, with cross-turns. Also, a *fair-leader* for running rigging.
- RACK-BLOCK.** A course of blocks made from one piece of wood, for fair-leaders.
- RARE.** The inclination of a mast from the perpendicular.
- RAVELINE.** A line used in mast-making to get a straight middle line on a spar.
- RANGE OF CABLE.** A quantity of cable, more or less, placed in order for letting go the anchor or paying out.
- RATLINES.** (Pronounced *rat-lins*.) Lines running across the shrouds horizontally, like the rounds of a ladder, and used to step upon in going aloft.
- RATTLE DOWN RIGGING.** To put ratlines upon rigging. It is still called rattling down, though they are now rattled up; beginning at the lowest. (See page 5.)
- RAZZZ.** A vessel of war which has had one deck cut down.
- REEF.** To reduce a sail by taking in upon its head, if a square sail, and its foot, if a fore-and-aft sail.
- REEF-BAND.** A band of stout canvas sewed on the sail across, with points in it, and earings at each end for reefing.
- A reef* is all of the sail that is comprehended between the head of the sail and the first reef-band, or between two reef-bands.
- REEF-TACKLE.** A tackle used to haul the middle of each leach up toward the yard, so that the sail may be easily reefed.
- REEVE.** To pass the end of a rope through a block, or any aperture.
- RELIEVING TACKLE.** A tackle hooked to the tiller in a gale of wind, to steer by in case anything should happen to the wheel or tiller-ropes.
- RENDER.** To pass a rope through a place. A rope is said to *render* or not, according as it goes freely through any place.

- RIB-BANDS.** Long, narrow, flexible pieces of timber nailed to the outside of the ribs, so as to encompass the vessel lengthwise.
- RIMS.** A figurative term for a vessel's timbers.
- RIDE AT ANCHOR.** To lie at anchor. Also, to bend or bear down by main strength and weight; as, to *ride down* the main tack.
- RIDERS.** Interior timbers placed occasionally opposite the principal ones, to which they are bolted, reaching from the keelson to the beams of the lower deck. Also, casks forming the second tier in a vessel's hold.
- RIGGING.** The general term for all the ropes of a vessel. (See **RUNNING, STANDING**.) Also, the common term for the shrouds with their ratlines; as, the *main rigging, mizzen rigging*, &c.
- RIGHT.** To right the helm, is to put it amidships.
- RIM.** The edge of a top.
- RING.** The iron ring at the upper end of an anchor, to which the cable is bent.
- RING-BOLT.** An eye-bolt with a ring through the eye. (See **ERE-BOLT**.)
- RING-TAIL.** A small sail, shaped like a jib, set abaft the spanker in light winds.
- ROACH.** A curve in the foot of a square sail, by which the clews are brought below the middle of the foot. The *roach* of a fore-and-aft sail is in its forward lurch.
- ROAD, OR ROADSTAD.** An anchorage at some distance from the shore.
- ROBANDS.** (See **ROPE-BANDS**.)
- ROLLING TACKLE.** Tackles used to steady the yards in a heavy sea.
- ROMBOWLINE.** Condemned canvas, rope, &c.
- ROPE-BANDS, OR ROBANDS.** Small pieces of two or three yarn spunyarn or marline, used to confine the head of the sail to the yard or gaff.
- ROPE-YARN.** A thread of hemp, or other stuff, of which a rope is made. (See page 25.)
- ROUGH-TRIZ.** An unfinished spar.
- ROUND IN.** To haul in on a rope, especially a weather-brace.
- ROUND UP.** To haul up on a tackle.
- ROUNDING.** A service of rope, hove round a spar or larger rope.
- ROWLOCKS, OR ROWLOCKS.** Places cut in the gunwale of a boat for the oar to rest in while pulling.
- ROYAL.** A light sail next above a topgallant sail. (See **PLATE 2**.)
- ROYAL YARD.** The yard from which the royal is set. The fourth from the deck. (See **PLATE 1**.)
- RUDDER.** A small instrument used to rub or flatten down the seams of a sail in sail-making.
- RUDDER.** The machine by which a vessel or boat is steered.
- RUN.** The after part of a vessel's bottom, which rises and narrows in approaching the stern-post.
- By the run.* To let go *by the run*, is to let go altogether, instead of slackening off.
- RUNE-HEADS.** The upper ends of the floor-boards.
- RUNNER.** A rope used to increase the power of a tackle. It is rove through a single block which you wish to bring down, and a tackle is hooked to each end, or to one end, the other being made fast.
- RUNNING RIGGING.** The ropes that reeve through blocks, and are pulled and hauled, such as braces, halyards, &c.; in opposition to the *standing rigging*, the ends of which are securely seized, such as stays, shrouds, &c. (See page 25.)
- SADDLES.** Pieces of wood hollowed out to fit on the yards to which they are nailed, having a hollow in the upper part for the boom to rest in.
- SAG.** To sag to leeward, is to drift off bodily to leeward.
- SAILS** are of two kinds: *square sails*, which hang from yards, their foot lying across the line of the keel, as the courses, topsails, &c.; and *fore-and-aft sails*, which set upon gaffs, or on stays, their foot running with the line of the keel, as jib, spanker, &c.
- SAIL NO!** The cry used when a sail is first discovered at sea.

- SAVE-ALL.** A small sail sometimes set under the foot of a lower studdingsail. (See **WATER SAIL**.)
- SCANTLING.** A term applied to any piece of timber, with regard to its breadth and thickness, when reduced to the standard size.
- SCARE.** To join two pieces of timber at their ends by shaving them down and placing them over-lapping.
- SCOOONER.** (See **PLATE 4**.) A small vessel with two masts and no tops. A *fore-and-aft schooner* has only fore-and-aft sails. A *topsail schooner* carries a square fore-topsail, and frequently, also, topgallantsail and royal. There are some schooners with three masts. They also have no tops. A *main-topsail schooner* is one that carries square topsails, fore and aft.
- SCORE.** A groove in a block or dead-eye.
- SOOTHMAN.** A large batten placed over the turnings-in of rigging. (See **BATTEN**.)
- SORAPER.** A small, triangular iron instrument, with a handle fitted to its centre, and used for scraping decks and masts.
- SOROWL.** A piece of timber bolted to the knees of the head, in place of a figure-head.
- SOUD.** To drive before a gale, with no sail, or only enough to keep the vessel ahead of the sea. Also, low, thin clouds that fly swiftly before the wind.
- SCULL.** A short oar.
- To scull,* is to impel a boat by one oar at the stern.
- SOUPERS.** Holes cut in the water-ways for the water to run from the decks.
- SOUTTLE.** A hoist cut in a vessel's deck, as a hatchway. Also, a hole cut in any part of a vessel.
- To scuttle,* is to cut or bore holes in a vessel to make her sink.
- SCUTTLE-BUTT.** (See **BUTT**.)
- SEAMS.** The intervals between planks in a vessel's deck or side.
- SEIZE.** To fasten ropes together by turns of small stuff.
- SEIZINGS.** (See page 32.) The fastenings of ropes that are seized together.
- SEVYAGE.** A sort of rope-yarns or spunyarn, married together. Used as a neat strap. (See page 32.)
- SEND.** When a ship's head or stern pitches suddenly and violently into the trough of the sea.
- SENNIT, OR SINNIT.** (See page 33.) A braid, formed by plaiting rope-yarns or spunyarn together. Straw, plaited in the same way for hats, is called *seennit*.
- SERVZ.** (See page 23.) To wind small stuff, as rope-yarns, spunyarn, &c., round a rope, to keep it from chafing. It is wound and hove round fast by a serving-board or mallet.
- SERVICE.** is the stuff so wound round.
- SET.** To set up rigging, is to tauter it by tackles. The seizings are then put on afresh.
- SHACKLES.** Links in a chain cable which are fitted with a moveable bolt so that the chain can be separated.
- SHAKES.** The staves of hogsheds taken apart.
- SHANK.** The main piece in an anchor, at one end of which the stock is made fast, and at the other the arms.
- SHANK-PAINTER.** A strong rope by which the lower part of the shank of an anchor is secured to the ship's side.
- SHARP UP.** Said of yards when braced as near fore-and-aft as possible.
- SHEATHING.** A casing or covering on a vessel's bottom.
- SHEARS.** Two or more spars, raised at angles and lashed together near their upper ends, used for taking in masts. (See page 33.)
- SHEAR-BULK.** An old vessel fitted with shears, &c., and used for taking out and putting in the masts of other vessels.
- SHEAVE.** The wheel in a block upon which the rope works.
- Sheave-hole,* the place cut in a block for the ropes to reeve through.
- SHKEP-SHANK.** A kind of hitch or bend, used to shorten a rope temporarily. (See **PLATE 5**, and page 31.)

- SHEER**, or **SIXTER-STARKS**. The line of plank on a vessel's side, running fore-and-aft under the gunwale. Also, a vessel's position when riding by a single anchor.
- SHKRY**. A rope used in setting a sail, to keep the clew down to its place. With square sails, the sheets run through each yard-arm. With boom sails, they haul the boom over one way and another. They keep down the inner clew of a studdingsail and the after clew of a jib. (See *HOME*.)
- SIBET ANCHOR**. A vessel's largest anchor: not carried at the bow.
- SHUZZL**. The case of a block.
- SHINGLE**. (See *BALLAST*.)
- SHIP**. A vessel with three masts, with tops and yards to each. (See *PLATE 4*.) To enter on board a vessel. To fix anything in its place.
- SHIVER**. To shake the wind out of a sail by bracing it so that the wind strikes upon the leach.
- SHOE**. A piece of wood used for the bill of an anchor to rest upon, to save the vessel's side. Also, for the heels of shears, &c.
- SHOE-BLOCK**. A block with two sheaves, one above the other, the one horizontal and the other perpendicular.
- SHORE**. A prop or stanchion, placed under a beam. To shore, to prop up.
- SHEGDS**. A set of ropes reaching from the mast-heads to the vessel's sides, to support the masts.
- SILLS**. Pieces of timber put in horizontally between the frames to form and secure any opening; as, for ports.
- SISTER BLOCK**. A long piece of wood with two sheaves in it, one above the other, with a score between them for a seizing, and a groove around the block, lengthwise.
- SKIDS**. Pieces of timber placed up and down a vessel's side, to bear any articles off clear that are hoisted in.
- SKIN**. The part of a sail which is outside and covers the rest when it is furled. Also, familiarly, the sides of the hold; as, an article is said to be stowed *next the skin*.
- SKY-SAIL**. A light sail next above the royal. (See *PLATE 2*.)
- SKY-SCRAPER**. A name given to a skysail when it is triangular.
- SKYLINE**. A small line used to haul up the foot of a course.
- SLACK**. The part of a rope or sail that hangs down loose.
Slack in stays, said of a vessel when she works slowly in tacking.
- SLEEPERS**. The knees that connect the transoms to the after timbers on the ship's quarter.
- SLEW**. To set a cask, spar, gun, or other article, in ropes, so as to put on & tackie and hoist or lower it.
- SLINGS**. The ropes used for securing the centre of a yard to the mast. *Yard-slings* are now made of iron. Also, a large rope fitted so as to go round any article which is to be hoisted or lowered.
- SLIP**. To let a cable go and stand out to sea. (See page 84.)
- SLIP-ROPE**. A rope bent to the cable just outside the hawse-hole, and brought in on the weather quarter, for slipping. (See page 84.)
- SLOOP**. A small vessel with one mast. (See *PLATE 4*.)
- SLOOP OF WAR**. A vessel of any rig, mounting between 18 and 22 guns.
- FLOR**. To turn anything round or over.
- SMALL STUFF**. The term for spinnaker, marline, and the smallest kinds of rope, such as ratline-stuff, &c.
- SNAKE**. To pass small stuff across a seizing, with marine hitches at the outer turns.
- SNATCH-BLOCK**. A single block, with an opening in its side below the sheave, or at the bottom, to receive the bight of a rope.
- SNOTTER**. A rope going over a yard-arm, with an eye, used to bend a tripping-line to in sending down topgallant and royal yards in vessels of war.
- SNOW**. A kind of brig, formerly used.
- SNUN**. To check a rope suddenly.
- SNYING**. A term for a circular plank edgewise, to work in the bows of a vessel.

- SO!** An order to 'vast hauling upon anything when it has come to its right position.
- SOLE**. A piece of timber fastened to the foot of the rudder, to make it level with the keel.
- SOUND**. To get the depth of water by a lead and line. (See page 80.) The pumps are sounded by an iron *sounding rod*, marked with a scale of feet and inches.
- SPAN**. A rope with both ends made fast, for a purchase to be hooked to its bight.
- SPANKER**. The after sail of a ship or bark. It is a fore-and-aft sail, setting with a boom and gaff. (See *PLATE 2*.)
- SPAR**. The general term for all masts, yards, booms, galls, &c.
- SPEEL**. The common term for a portion of time given to any work.
To speel, is to relieve another at his work.
Spell ho! An exclamation used as an order or request to be relieved at work by another.
- SPENCER**. A fore-and-aft sail, set with a gaff and no boom, and hoisting from a small mast called a *spencer mast*, just abaft the fore and main masts. (See *PLATES 2 and 4*.)
- SPELL**. To shake the wind out of a sail by bracing it so that the wind may strike its leach and shiver it.
- SPILLING LINE**. A rope used for spilling a sail. Rove in bad weather.
- SPINDLE**. An iron pin upon which the capstan moves. Also, a piece of timber forming the diameter of a made mast. Also, any long pin or bar upon which anything revolves.
- SPIRRETING**. The planks from the water-ways to the port-sills.
- SPLICER**. (See *PLATE 5* and page 27.) To join two ropes together by interweaving their strands.
- SPOON-DRIFT**. Water swept from the tops of the waves by the violence of the wind in a tempest, and driven along before it, covering the surface of the sea.
- SPRAY**. An occasional sprinkling dashed from the top of a wave by the wind, or by its striking an object.
- SPRING**. To crack or split a mast.
To spring a leak, is to begin to leak.
To spring a lug, is to force a vessel close to the wind, in sailing.
- SPRING-STAY**. A preventer-stay, to assist the regular one. (See *STAT*.)
- SPRING TIDES**. The highest and lowest course of tides, occurring every new and full moon.
- SPRINT**. A small boom or gaff, used with some sails in small boats. The lower end rests in a becket or snottier by the foot of the mast, and the other end spreads and raises the outer upper corner of the sail, crossing it diagonally. A sail so rigged in a boat is called a *sprit-sail*.
- SPRIT-SAIL-YARD**. (See *PLATE 5*.) A yard lashed across the bowsprit or knight-heads, and used to spread the guys of the jib and flying jib-boom. There was formerly a sail bent to it called a *sprit-sail*.
- SPUNYARN**. (See page 26.) A cord formed by twisting together two or three rope-yarns.
- SPURRING LINE**. A line communicating between the tiller and tell-tale.
- SPURS**. Pieces of timber fixed on the bilge-ways, their upper ends being bolted to the vessel's sides above the water. Also, curved pieces of timber, serving as half beams, to support the decks where whole beams cannot be placed.
- SPUR-SHOES**. Large pieces of timber that come abaft the pump-well.
- SQUARE**. Yards are *squared* when they are horizontal and at right angles with the keel. Squaring by the lifts makes them horizontal; and by the braces, makes them at right angles with the vessel's line. Also, the proper term for the length of yards. A vessel has square yards when her yards are unusually long. A sail is said to be very *square* on the head when it is long on the head.
To square a yard, in working ship, means to bring it in square by the braces.

SQUARE-SAIL. A temporary sail, set at the fore-mast of a schooner or sloop when going before the wind. (See **SAIL**.)

STADDER. A **PRICKER**.

STAFF. A pole or mast, used to hoist flags upon.

STANCHIONS. (See **PLATE 3**.) Upright posts of wood or iron, placed so as to support the beams of a vessel. Also, upright pieces of timber, placed at intervals along the sides of a vessel, to support the bulwarks and rail, and reaching down to the bends, by the side of the timbers, to which they are bolted. Also, any fixed, upright support; as to an awning, or for the man-ropes.

STAND BY! An order to be prepared.

STANDARD. An inverted knee, placed above the deck instead of beneath it; as, *bitt-standard*, &c.

STANDING. The standing part of a rope is that part which is fast, in opposition to the part that is hauled upon; or the main part, in opposition to the end.

The *standing part* of a tackle is that part which is made fast to the blocks and between that and the next sheave, in opposition to the hauling and leading parts.

STANDING RIGGING. (See page 26.) That part of a vessel's rigging which is made fast and not hauled upon. (See **RUNNING**.)

STARBOARD. The right side of a vessel, looking forward.

STARBOARD LINES. The familiar term for the men in the starboard watch.

START. To start a cask, is to open it.

STAY. To tack a vessel, or put her about, so that the wind, from being on one side, is brought upon the other, round the vessel's head. (See **TACK**, **WEAR**.)

To *stay a mast*, is to incline it forward or aft, or to one side or the other, by the stays and backstays. Thus, a mast is said to be *stayed* too much forward or aft, or too much to port, &c.

STAYS. Large ropes, used to support masts, and leading from the head of some mast down to some other mast, or to some part of the vessel. Those which lead forward are called *fore-and-aft stays*; and those which lead down to the vessel's sides, *backstays*. (See **BACKSTAYS**.)

In *stays*, or *hove in stays*, the situation of a vessel when she is *staying*, or going about from one tack to the other.

STAYSAIL. A sail which hoists upon a stay.

STEADY! An order to keep the helm as it is.

STEEPRIDGE. That part of the between-decks which is just forward of the cabin.

STEEVE. A bowsprit steers more or less, according as it is raised more or less from the horizontal.

The *steve* is the angle it makes with the horizon. Also, a long, heavy spar, with a place to fit a block at one end, and used in stowing certain kinds of cargo, which need be driven in close.

STEM. (See **PLATE 3**.) A piece of timber reaching from the forward end of the keel, to which it is scarfed, up to the bowsprit, and to which the two sides of the vessel are united.

STEMSON. A piece of compass-timber, fixed on the after part of the apron inside. The lower end is scarfed into the keelson, and receives the scarf of the stem, through which it is bolted.

STEP. A block of wood secured to the keel, into which the heel of the mast is placed.

To *step a mast*, is to put it in its step.

STERN. (See **PLATE 3**.) The after end of a vessel. (See **BY THE STERN**.)

STERN-BOARD. The motion of a vessel when going stern foremost.

STERN-FRAME. The frame composed of the stern post transom and the fashion-pieces.

STERN-POST. (See **PLATE 3**.) The aftermost timber in a ship, reaching from the after end of the keel to the deck. The stem and stern-post are the two extremes of a vessel's frame.

Inner stern-post. A post on the inside, corresponding to the *stern-post*.

STERN-SHEETS. The after part of a boat, abaft the rowers, where the passengers sit.

STIFF. The quality of a vessel which enables it to carry a great deal of sail without lying over much on her side. The opposite to *crank*.

STIRUPS. Ropes with thimbles at their ends, through which the foot-ropes are rove, and by which they are kept up toward the yards.

STOCK. A beam of wood or a bar of iron, secured to the upper end of the shank of an anchor, at right angles with the arms. An iron stock usually goes with a key, and unships.

STOOKS. The frame upon which a vessel is built.

STOOLS. Small channels for the dead-eyes of the backstays.

STOPPER. A stout rope with a knot at one end, and sometimes a hook at the other, used for various purposes about decks; as, making fast a cable, so as to overhaul. (See **CAT STOPPER**, **DROCK STOPPER**.)

STOPPER BOLTS. Ring-bolts to which the deck stoppers are secured.

STOP. A fastening of small stuff. Also, small projections on the outside of the cheeks of a lower mast, at the upper parts of the bounds.

STRAND. (See page 26.) A number of rope-yarns twisted together. Three, four or nine strands twisted together form a rope.

A rope is *stranded* when one of its strands is parted or broken by chafing or by a strain.

A vessel is *stranded* when she is driven on shore.

STRAP. A piece of rope spliced round a block to keep its parts well together. Some blocks have iron straps, in which case they are called *iron-bound*.

STREAM, or STRAKE. A range of planks running fore-and-aft on a vessel's side.

STREAM. The *stream anchor* is one used for warping, &c., and sometimes as a lighter anchor to moor by, with a hawser. It is smaller than the bowers, and larger than the *kedges*.

To *stream a buoy*, is to drop it into the water.

STRETCHERS. Pieces of wood placed across a boat's bottom, inside, for the oarsmen to press their feet against, in rowing. Also, cross pieces placed between a boat's sides to keep them apart when hoisted up and gripped.

STRIKE. To lower a sail or colour.

STUDDINGSAILS. (See **PLATE 2**.) Light sails set outside the square sails, on booms rigged out for that purpose. They are only carried with a fair wind and in moderate weather.

SWAB, or SEWED. The condition of a ship when she is high and dry on shore. If the water leaves her two feet, she *sues*, or is *sued*, two feet.

SUPPORTERS. The knee-timbers under the cat-heads.

SWAY. The breaking of the sea upon the shore.

SWELL. A large, swelling wave.

To *swell* a rope or cable, is to slack it up suddenly where it renders round a pin, or round the windlass or capstan.

Surge ho! The notice given when a cable is to be *surged*.

SWAB. A nap, formed of old rope, used for cleaning and drying decks.

SWEEP. To drag the bottom for an anchor. Also, large oars, used in small vessels to force them ahead.

SWIFT. To bring two shrouds or stays close together by ropes.

SWIFTER. The forward shroud to a lower mast. Also, ropes used to confine the capstan bars to their places when shipped.

SWIG. A term used by sailors for the mode of hauling off upon the bight of a rope when its lower end is fast.

SWIVEL. A long link of iron, used in chain cables, made so as to turn upon an axis and keep the turns out of a chain.

SYMPHERING. Lapping the edges of planks over each other for a bulkhead.

TARLING. Letting one beam-piece into another. (See **SCARFING**.) Also, the broad hem on the borders of sails, to which the bolt-rope is sewed.

TACK. To put a ship about, so that from having the wind on one side, you bring it round on the other by the way of her head. The opposite of *wear*.

- TACK**. A vessel is on the *starboard tack*, or has her *starboard tack* on board, when she has the wind on her starboard side.
The rope or tackle by which the weather clew of a course is hauled forward and down to the deck.
The *tack* of a fore-and-aft sail is the rope that keeps down the lower forward clew; and of a studdingsail, the lower outer clew. The tack of the lower studdingsail is called the *outhaul*. Also, that part of a sail to which the tack is attached.
- TACKLE**. (Pronounced *tay-cle*.) A purchase, formed by a rope rove through one or more blocks.
- TAFFRIL**, or **TAPPEREL**. The rail round a ship's stern.
- TAIL**. A rope spliced into the end of a block and used for making it fast to rigging or spars. Such a block is called a *tail-block*.
A ship is said to *tail* up or down stream, when at anchor, according as her stern swings up or down with the tide; in opposition to *leading* one way or another, which is said of a vessel when under way.
- TAIL-TACKLE**. A watch-tackle. (See page 85.)
- TAIL-ON** or **TALLY-ON**. An order given to take hold of a rope and pull.
- TANK**. An iron vessel placed in the hold to contain the vessel's water.
- TAR**. A liquid gum, taken from pine and fir-trees, and used for caulking, and to put upon yarns in rope-making, and upon standing rigging, to protect it from the weather.
- TARPAULIN**. A piece of canvas, covered with tar, used for covering hatches, boats, &c. Also, the name commonly given to a sailor's hat when made of tarred or painted cloth.
- TAUT**. Tight.
- TAUNT**. High or tall. Commonly applied to a vessel's masts.
All-a-taunt-o. Said of a vessel when she has all her light and tall masts and spars aloft.
- TELL-TALE**. A compass hanging from the beams of the cabin, by which the heading of a vessel may be known at any time. Also, an instrument connected with the barrel of the wheel, and traversing so that the officer may see the position of the tiller.
- TEND**. To watch a vessel at anchor at the turn of tides, and cast her by the helm, and come sail if necessary, as as to keep turns out of her cables.
- TENON**. The heel of a mast, made to fit into the step.
- THICK-AND-THIN BLOCK**. A block having one sheave larger than the other. Sometimes used for quarter-blocks.
- THIMBLE**. An iron ring, having its rim concave on the outside for a rope or strap to fit snugly round.
- THOLE-PINS**. Pins in the gunwale of a boat, between which an oar rests when pulling, instead of a rowlock.
- THROAT**. The inner end of a gaff, where it widens and hollows in to fit the mast. (See *JAW*.) Also, the hollow part of a knee.
The *throat* brails, halyards, &c., are those that hoist or haul up the gaff or sail near the throat. Also, the angle where the arm of an anchor is joined to the shank.
- THROW**. To stick short strands of yarn through a mat or piece of canvas, to make a rough surface.
- THURST**. The pole going across a boat, upon which the oarsmen sit.
- THURSTERS**. (See *ATHWARTSHIPS*.)
- TIDE**. To tide up or down a river or harbour, is to work up or down with a fair tide and head wind or calm, coming to anchor when the tide turns.
- TIDE-ROCK**. The situation of a vessel, at anchor, when she swings by the force of the tide. In opposition to *wind-rock*.
- TINN**. A range of cables. Also, the range of the fakes of a cable or hawser.
The *cable tier* is the place in a hold or between decks where the cables are stowed.
- TILLER**. A bar of wood or iron, put into the head of the rudder, by which the rudder is moved.

- TILLER-ROPE**. Ropes leading from the tiller-head round the barrel of the wheel, by which a vessel is steered.
- TIMBER**. A general term for all large pieces of wood used in ship-building. Also, more particularly, long pieces of wood in a curved form, bending outward, and running from the keel up, on each side, forming the ribs of a vessel. The keel, stem, stern-posts and timbers form a vessel's outer frame. (See *PLATE 3*.)
- TIMBER-HEADS**. (See *PLATE 3*.) Two ends of the timbers that come above the decks. Used for belaying hawsers and large ropes.
- TIMMOGUY**. A rope carried taut between different parts of the vessel, to prevent the sheet or tack of a course from getting foul, in working ship.
- TODGLE**. A pin placed through the bight or eye of a rope, block-strap, or bolt, to keep it in its place, or to put the bight or eye of another rope upon, and thus to secure them both together.
- TOMPION**. A bung or plug placed in the mouth of a cannon.
- TOP**. A platform, placed over the head of a lowermast, resting on the trestle-trees, to spread the rigging, and for the convenience of men aloft. (See *PLATE 1*.)
To *top* up a yard or boom, is to raise up one end of it by hoisting on the lift.
- TOP-BLOCK**. A large iron-bound block, hooked into a bolt under the lower cap, and used for the top-rope to reeve through in sending up and down topmasts.
- TOP-LIGHT**. A signal lantern carried in the top.
- TOP-LINING**. A lining on the afterpart of sails, to prevent them from chafing against the top-rim.
- TOPMAST**. (See *PLATE 1*.) The second mast above the deck. Next above the lower mast.
- TOPGALLANTMAST**. (See *PLATE 1*.) The third mast above the deck.
- TOP-ROPE**. The rope used for sending topmasts up and down.
- TOPSAIL**. (See *PLATE 2*.) The second sail above the deck.
- TOPGALLANTSAIL**. (See *PLATE 2*.) The third sail above the deck.
- TOPPING-LIFT**. (See *PLATE 1*.) A lift used for topping up the end of a boom.
- TOP TIMBERS**. The highest timbers on a vessel's side, being above the futtocks. (See *PLATE 3*.)
- Toss**. To throw an oar out of the rowlock, and raise it perpendicularly on its end, and lay it down in the boat, with its blade forward.
- TOUCH**. A sail is said to *touch*, when the wind strikes the leach so as to shake it a little.
Luff and touch her! The order to bring the vessel up and see how near she will go to the wind.
- TOW**. To draw a vessel along by means of a rope.
- TRAIN-TACKLE**. The tackle used for running guns in and out.
- TRANSOMS**. (See *PLATE 3*.) Pieces of timber going across the stern-post, to which they are bolted.
- TRANSC-KNEES**. Knees bolted to the transoms and after timbers.
- TRAVELLER**. An iron ring, fitted so as to slip up and down a rope.
- TRUNKHEAD**, or **TRUNKHEAD**. Long wooden pins, used for nailing a plank to a timber.
- TREND**. The lower end of the shank of an anchor, being the same distance on the shank from the throat that the arm measures from the throat to the bill.
- TRESTLE-TREES**. Two strong pieces of timber, placed horizontally and fore-and-aft on opposite sides of a mast-head, to support the cross-trees and top, and for the fid of the mast above to rest upon.
- TRIATIC STAY**. A rope secured at each end to the heads of the fore and main masts, with thimbles applied into its bight to hook the stay tackles to.
- TRICK**. To haul up by means of a rope.
- TRICK**. The time allotted to a man to stand at the helm.
- TRIM**. The condition of a vessel, with reference to her cargo and ballast.
A vessel is *trimmed* by the head or by the stern.

- In ballast-trim*, is when she has only ballast on board.
Also, to arrange the sails by the braces with reference to the wind.
- TRIP.** To raise an anchor clear of the bottom.
- TRIPPING LINE.** A line used for tripping a topgallant or royal yard in sending it down.
- TRUCK.** A circular piece of wood, placed at the head of the highest mast on a ship. It has small holes or sheaves in it for signal halyards to be rove through. Also, the wheel of a gun-carriage.
- TRUNNIONS.** The arms on each side of a cannon by which it rests upon the carriage, and on which, as an axis, it is elevated or depressed.
- TRUSS.** The rope by which the centre of a lower yard is kept in toward the mast.
- TREYSAIL.** A fore-and-aft-sail, set with a boom and gaff, and hoisting on a small mast abaft the lowermast, called a *trysail-mast*. This name is generally confined to the sail so carried at the mainmast of a full-rigged brig; those carried at the foremast and at the mainmast of a ship or bark being called *spencers*, and those that are at the mizzenmast of a ship or bark, *spankers*.
- TUMBLING HOME.** Said of a ship's sides when they fall in above the bends. The opposite of *wall-sided*.
- TURN.** Passing a rope once or twice round a pin or keel, to keep it fast. Also, two crosses in a cable.
To *turn in* or *turn out*, nautical terms for going to rest in a berth or hammock, and getting up from them.
Turn up! The order given to send the men up from between decks.
- TYE.** A rope connected with a yard, to the other end of which a tackle is attached for hoisting.
- UNBEND.** To cast off or untie. (See *BEND*.)
- UNION.** The upper inner corner of an ensign. The rest of the flag is called the *fly*. The union of the U. S. ensign is a blue field with white stars, and the *fly* is composed of alternate white and red stripes.
Union-down. The situation of a flag when it is hoisted upside down, bringing the union down instead of up. Used as a signal of distress.
Union jack. A small flag, containing only the union, without the *fly*, usually hoisted at the bowsprit-cap.
- UNMOOR.** To heave up one anchor so that the vessel may ride at a single anchor. (See *MOOR*.)
- UNSHIP.** (See *SHIP*.)
- UYAOU.** (See *EUYAOU*.)
- VANE.** A fly worn at the masthead, made of feathers or buntine, traversing on a spindle, to shew the direction of the wind. (See *DOO VANE*.)
- VANG.** (See *PLATE 1*.) A rope leading from the peak of the gaff of a fore-and-aft sail to the rail on each side, and used for steadying the gaff.
- VAST.** (See *AVAST*.)
- VEER.** Said of the wind when it changes. Also, to slack a cable and let it run out. (See *PAY*.)
To *veer and haul*, is to haul and slack alternately on a rope, as in warping, until the vessel or boat gets headway.
- VIOL, or VOYAL.** A larger messenger sometimes used in weighing an anchor by a capstan. Also, the block through which the messenger passes.
- WAIST.** That part of the upper deck between the quarter-deck and fore-castle.
Waistmen. Green hands, or broken-down seamen, placed in the waist of a man-of-war.
- WAKE.** The track or path a ship leaves behind her in the water.
- WALES.** Strong planks in a vessel's sides, running her whole length fore-and-aft.
- WALL.** A knot put on the end of a rope. (See *PLATE 5* and page 23.)

- WALL-SIDED.** A vessel is *wall-sided* when her sides run up perpendicularly from the bends. In opposition to *tumbling home* or *flaring out*.
- WARD-ROOM.** The room in a vessel of war in which the commissioned officers live.
- WARE, or WEAR.** To turn a vessel round, so that, from having the wind on one side, you bring it upon the other, carrying her stern round by the wind. In *tacking*, the same result is produced by carrying a vessel's head round by the wind.
- WARP.** To move a vessel from one place to another by means of a rope made fast to some fixed object, or to a kedge.
A *warp* is a rope used for warping. If the warp is bent to a kedge which is let go, and the vessel is hove ahead by the capstan or windlass, it would be called *kedging*.
- WASH-BOARDS.** Light pieces of board placed above the gunwale of a boat.
- WATCH.** (See page 128.) A division of time on board ship. There are seven watches in a day, reckoning from twelve M. round through the twenty-four hours, five of them being of four hours each, and the two others, called *dog watches*, of two hours each, viz., from four to six, and from six to eight, P.M. (See *DOG WATCH*.) Also, a certain portion of a ship's company, appointed to stand a given length of time. In the merchant service all hands are divided into two watches, larboard and starboard, with a mate to command each.
A *buoy* is said to *watch* when it floats on the surface.
- WATCH-AND-WATCH.** The arrangements by which the watches are alternated every other four hours. In distinction from keeping all hands during one or more watches. (See page 128.)
- Anchor watch,* a small watch of one or two men, kept while in port.
- WATCH HO! WATCH!** The cry of the man that heaves the deep-sea lead.
- WATCH-TACKLE.** (See page 35.) A small left purchase with a short fall, the double block having a tail to it, and the single one a hook. Used for various purposes about decks.
- WATER SAIL.** A *saw-ail*, set under the swinging-boom.
- WATER-WAYS.** Long pieces of timber, running fore-and-aft on both sides, connecting the deck with the vessel's sides. The *scuppers* are made through them to let the water off. (See *PLATE 3*.)
- WEAR.** (See *WARP*.)
- WEATHER.** In the direction from which the wind blows. (See *WINDWARD*, *LEE*.)
A ship carries a *weather helm* when she tends to come up into the wind requiring you to put the helm up.
Weather gage. A vessel has the *weather gage* of another when she is to windward of her.
A *weatherly ship*, is one that works well to windward, making but little leeway.
- WEATHER-BIT.** To take an additional turn with a cable round the windlass-end.
- WEATHER-ROLL.** The roll which a ship makes to windward.
- WEIGH.** To lift up; as, to weigh an anchor or a mast.
- WHEEL.** The instrument by which a ship is steered; being a barrel (round which the tiller-ropes go), and a wheel with spokes.
- WHIP.** (See page 34.) A purchase formed by a rope rove through a single block.
To *whip*, is to hoist by a whip. Also, to secure the end of a rope from fagging by a seizing of twine.
- Whip-upon-whip.** One whip applied to the fall of another.
- WINCH.** A purchase formed by a horizontal spindle or shaft with a wheel or crank at the end. A small one with a wheel is used for making ropes or spungarn.
- WINDLASS.** The machine used in merchant vessels to weigh the anchor by.
- WIND-RODE.** The situation of a vessel at anchor when she swings and rides by the force of the wind, instead of the tide or current. (See *TIDE-RODE*.)

- WING.** That part of the hold or between-decks which is next the side.
- WINGERS.** Casks stowed in the wings of a vessel.
- WING-AND-WING.** The situation of a fore-and-aft vessel when she is going dead before the wind, with her foresail hauled over on one side and her mainsail on the other.
- WITZEL, or WITCHE.** An iron instrument fitted on the end of a boom or mast, with a ring to it, through which another boom or mast is rigged out and secured.
- WOULD.** To wind a piece of rope round a spar, or other thing.
- WORK UP.** To draw the yards from old rigging and make them into spunyarn, foxes, seannit, &c. Also, a phrase for keeping a crew constantly at work upon needless matters, and in all weathers, and beyond their usual hours, for punishment.
- WORK.** (See page 26.) To fill up between the lays of a rope with small stuff wound round spirally. Stuff so wound round is called *worming*.
- WRING.** To bend or strain a mast by setting the rigging up too taut.
- WRING-BOLTS.** Bolts that secure the planks to the timbers.
- WINDING-SHAYS.** Strong pieces of plank used with the wring-bolts.
- YACHT.** (Pronounced *yot*.) A vessel of pleasure or state.
- YARD.** (See *PLANK* 1.) A long piece of timber, tapering slightly toward the ends, and hung by the centre to a mast, to spread the square sails upon.
- YARD-ARM.** The extremities of a yard.
- YARD-ARM AND YARD-ARM.** The situation of two vessels, lying alongside one another, so near that their yard-arms cross or touch.
- YARN.** (See *ROPE-YARN*.)
- YAW.** The motion of a vessel when she goes off from her course.
- YEOMAN.** A man employed in a vessel of war to take charge of a storeroom; as, boatswain's yeoman, the man that has charge of the stores, of rigging, &c.
- YORK.** A piece of wood placed across the head of a boat's rudder, with a rope attached to each end, by which the boat is secured.

PART II.

CHAPTER I.

THE MASTER.

Beginning of the voyage—Shipping the crew—Outfit—Provisions—Watches—Navigation—Log-book—Observations—Working ship—Day's work—Discipline

In the third part of this work, it will be seen that the shipmaster is a person to whom, both by the general marine law of all commercial nations, and by the special statutes of the United States, great powers are confided, and upon whom heavy responsibilities rest. The shipmaster will find there what are his legal rights, duties, and remedies as to owner, ship, and crew, and the various requirements as to the papers with which he is to furnish his ship, and the observances of revenue and other regulations.

It is proposed to give here, rather more, perhaps, for the information of others than of the master himself, the ordinary and everyday duties of his office, and the customs which long usage has made almost as binding as laws.

There is a great difference in different ports, and among the various owners, as to the part the master is to take in supplying and manning the vessel. In many cases, the owner puts on board all the stores for the ship's use and for the crew, and gives the master particular directions, sometimes in writing, as to the manner in which he is to dispense them. These directions are more or less liberal, according to the character of the owner; and, in some cases, the dispensing of the stores is left to the master's discretion. In other instances, the master makes out an inventory of all the stores he thinks it expedient to have put on board, and they are accordingly supplied by the owner's order.

In the manner of shipping the crew, there is as great a difference as in that of providing the stores. Usually, the whole thing is left

to shipping-masters, who are paid so much a head for each of the crew, and are responsible for their appearance on board at the time of sailing. When this plan is adopted, neither the master nor owner, except by accident, knows anything of the crew before the vessel goes to sea. The shipping-master opens the articles at his office, procures the men, sees that they sign in due form, pays them their advance, takes care that they, or others in their place, are on board at the time of sailing, and sends in a bill for the whole to the owner. In other cases, the master selects his crew, and occasionally the owner does it, if he has been at sea himself and understands seamen; though a shipping-master is still employed, to see them on board, and for other purposes. In the ordinary course of short voyages, where crews are shipped frequently, and there is not much motive for making a selection, the procuring a crew may be left entirely to the agency of a faithful shipping-master; but upon long voyages, the comfort and success of which may depend much upon the character of a crew, the master or owner should interest himself to select able-bodied and respectable men, to explain to them the nature and length of the voyage they are going upon, what clothing they will want, and the work that will be required of them, and should see that they have proper and sufficient accommodations and provisions for their comfort. The master or owner should also, though this duty is often neglected, go to the fore-castle and see that it is cleaned out, whitewashed, or painted, put in a proper habitable condition, and furnished with every reasonable convenience. It would seem best that the master should have something to do with the selection of the provisions for his men, as he will usually be more interested in securing their good-will and comfort than the owner would be.

By the master or owner's thus interesting himself for the crew, a great deal of misunderstanding, complaint, and ill-will may be avoided, and the beginning, at least, of the voyage be made under good auspices.

Unless the master is also supercargo, his duties, before sailing, are mostly confined to looking after the outfit of the vessel, and seeing that she is in sea order.

Everything being in readiness, the customhouse and other regulations complied with, and the crew on board, the vessel is put under the charge of the pilot to be carried out clear of the land. While the pilot is on board, the master has little else to do than to see that everything is in order, and that the commands of the pilot are executed. As soon as the pilot leaves the ship, the entire control and responsibility is thrown upon the master. When the vessel is well clear of the land, and things are put into some order,

it is usual for the master to call all hands aft, and say something to them about the voyage upon which they have entered. After this, the crew are divided into watches. The watches are the divisions of the crew into two equal portions. The periods of time occupied by each part of the crew, while on duty, are also called watches.

There are two watches,—the larboard, commanded by the chief mate, and the starboard, by the second mate. The master himself stands no watch, but comes and goes at all times, as he chooses. The starboard is sometimes called the captain's watch, probably from the fact that in the early days of the service, when vessels were smaller, there was usually but one mate, and the master stood his own watch; and now, in vessels which have no second mate, the master keeps the starboard watch. In dividing into watches, the master usually allows the officers to choose the men, one by one, alternately; but sometimes makes the division himself, upon consulting with his officers. The men are divided as equally as possible, with reference to their qualities as able seamen, ordinary seamen, or boys (as all green hands are called, whatever their age may be); but if the number is unequal, the larboard watch has the odd one, since the chief mate does not go aloft and do other duty in his watch, as the second mate does in his. The cook always musters with the larboard watch, and the steward with the starboard. If there is a carpenter, and the larboard watch is the largest, he generally goes aloft with the starboard watch; otherwise, with the larboard.

As soon as the division is made, if the day's work is over, one watch is set, and the other is sent below. Among the numerous customs of the ocean, which can hardly be accounted for, it is one that on the first night of the outward passage the starboard watch should take the first four hours on deck, and on the first night of the homeward passage the larboard should do the same. The sailors explain this by the old phrase, that the master takes the ship out and the mate takes her home.

The master takes the bearing and distance of the last point of departure upon the land, and from that point the ship's reckoning begins, and is regularly kept in the log-book. The chief mate keeps the log-book, but the master examines and corrects the reckoning every day. The master also attends to the chronometer, and takes all the observations, with the assistance of his officers, if necessary. Every day, a few minutes before noon, if there is any prospect of being able to get the sun, the master comes upon deck with his quadrant or sextant, and the chief mate also usually takes his. The second mate does not, except upon a Sunday, or when there is no work going forward. As soon as the sun crosses the meridian,

eight bells are struck, and a new day begins. The reckoning is then corrected by the observation, under the master's superintendence.

The master also takes the lunar observations, usually with the assistance of both his officers; in which case, the master takes the angle of the moon with the star or sun, the chief mate takes the altitude of the sun or star, and the second mate the altitude of the moon.

In regulating the hours of duty and sleep, the meal times, the food, &c., the master has absolute power; yet the customs are very nearly the same in all vessels. The hour of breakfast is seven bells in the morning (half after seven), dinner at noon, and supper whenever the day's work is over. If the voyage is a long one, the crew are usually put upon an allowance of bread, beef, and water. The dispensing of the stores and regulating of the allowance lies, of course, with the master, though the duty of opening the casks, weighing, measuring, &c., falls upon the second mate. The chief mate enters in the log-book every barrel or cask of provisions that is broached. The steward takes charge of all the provisions for the use of the cabin, and keeps them in the pantry, over which he has the direct control. The average of allowance, in merchant vessels, is six pounds of bread a week, and three quarts of water, and one pound and a half of beef, or one and a quarter of pork, a day, to each man.

The entire control of the navigation and working of the ship lies with the master. He gives the course and general directions to the officer of the watch, who enters upon a slate, at the end of the watch, the course made, and the number of knots, together with any other observations. The officer of the watch is at liberty to trim the yards, to make alterations in the upper sails, to take in and set royals, topgallant sails, &c.; but no important alteration can be made, as, for instance, reefing a topsail, without the special order of the master, who, in such cases, always comes upon deck and takes command in person. When on deck, the weather side of the quarter-deck belongs to him, and as soon as he appears, the officer of the watch will always leave it, and go over to leeward, or forward into the waist. If the alteration to be made is slight, the master usually tells the officer to take in or set such a sail, and leaves to him the particular ordering as to the braces, sheets, &c., and the seeing all things put in place. The principal manœuvres of the vessel, as tacking, wearing, reefing topsails, getting under way, and coming to anchor, require all hands. In these cases, the master takes command and gives his orders in person, standing upon the quarter-deck. The chief mate superintends the forward part of the

vessel, under the master, and the second mate assists in the waist. The master never goes aloft, nor does any work with his hands, unless for his own pleasure. If the officer of the watch thinks it necessary to reef the topsails, he calls the master, who, upon coming on deck, takes command, and, if he thinks proper, orders all hands to be called. The crew, officers and all, then take their stations, and await the orders of the master, who works the ship in person, giving all the commands, even the most minute, and looks out for trimming the yards and laying the ship for reefing. The chief mate commands upon the fore-castle, under the master, and does not go aloft. The second mate goes aloft with the crew.

In tacking and wearing, the master gives all the orders, as to trimming the yards, &c., though the chief mate is expected to look out for the head yards. So, in getting under way, and in coming to anchor, the master takes the entire personal control of everything, the officers acting under him in their several stations.

In the ordinary day's work, however, which is carried on in a vessel, the state of things is somewhat different. This the master does not superintend personally; but gives general instructions to the chief mate, whose duty it is to see to their execution. To understand this distinction, the reader will bear in mind that there are two great divisions of duty and labour on shipboard. One, the *working and navigating of the vessel*: that is, the keeping and ascertaining the ship's position, and directing her course, the making and taking in sail, trimming the sails to the wind, and the various nautical manœuvres and evolutions of a vessel. The other branch is, the work done upon the hull and rigging, to keep it in order, such as the making and fitting of new rigging, repairing of old, &c.; all which, together with making of small studds to be used on board, constitute the *day's work and jobs* of the crew. As to the latter, the master usually converses confidentially with the chief mate upon the state of the vessel and rigging, and tells him, more or less particularly, what he wishes to have done. It then becomes the duty of this officer to see the thing accomplished. If, for instance, the master tells the chief mate to stay the topmasts more forward, the chief mate goes upon the fore-castle, sets the men to work, one upon one thing and another upon another, sees that the stays and back-stays are come up with, has tackles got upon the rigging, sights the mast, &c. If the master sees anything which he disapproves of, and has any preferences in the modes of doing the work, he should call the officer aft and speak to him; and if, instead of this, he were to go forward and give orders to the men, it would be considered an insult to the officer. So with any other work doing upon the ship or rigging, as rattling down, turning in and setting up rigging,

probably lead to difficulty.

Where there are passengers, as in regular line of packet ships (or, as they are familiarly called, *liners*) between New York and Liverpool or Havre, for instance, the master has even less to do with the day's work; since the navigation and working of the ship, with proper attention to his passengers, is as much as can reasonably be required of him.

The master has the entire control of the cabin. The mates usually live in a state room by themselves, or, if they live in the cabin, they yet feel that the master is the head of the house, and are unwilling to interfere with his hours and occupations. The chief mate dines with the master, and the second mate looks out for the ship while they are below, and dines at the second table. In the *liners*, however, the mates usually dine together; the master looks out for the ship while they are at dinner, and dines with his passengers at a later hour.

As the master stands no watch, he comes and goes as he pleases, and takes his own hours for rest. In fine weather, he is not necessarily much on deck, but should be ready at all times, especially in bad weather, to be up at a moment's notice.

Everything of importance that occurs, as the seeing a sail or land, or the like, must be immediately reported to the master. And in heaving-to for speaking, the master takes the entire charge of working the vessel, and speaks the other sail in person.

As will be found in the third part of this book, the master has the entire control of the discipline of the ship, and no subordinate officer has authority to punish a seaman, or to use force, without the master's order, except in cases of necessity not admitting of delay. He has also the complete direction of the internal arrangements and economy of the vessel, and upon his character, and upon the course of conduct he pursues, depend in a great measure the character of the ship and the conduct of both officers and men. He has a power and influence, both direct and indirect, which may be the means of much good or much evil. If he is profane, passionate, tyrannical, indecent, or intemperate, more or less of the same qualities will spread themselves or break out among officers and men, which, perhaps would have been checked, if not in some degree removed, had the head of the ship been a man of high personal character. He may make his ship almost anything he chooses, and may render

command, but may render
to raise the character of the calling.

CHAPTER II.

THE CHIEF MATE.

Care of rigging and ship's furniture—Day's work—Working ship—Coming to anchor—
Getting under way—Reefing—Furling—Duties in port—Account of cargo—Stowage
—Station—Log-book—Navigation.

THE chief mate, or, as he is familiarly called on board ship, *the mate*, is the active superintending officer. In the previous chapter, upon the duties of the master, it will be seen that, in all matters relating to the care of and work done upon the ship and rigging, the master gives general orders to the mate, who attends personally to their execution in detail. Indeed, in the *day's work* on board ship, the chief mate is the only officer who appears in command. The second mate works like a common seaman, and the men seldom know what is to be done until they receive their orders in detail from the chief mate. It is his duty to carry on the work, to find every man something to do, and to see that it is done. He appoints the second mate his work, as well as the common seamen theirs; and if the master is dissatisfied with anything, or wishes a change, he should speak to the chief mate, and let him make the change, and not interfere with the men individually. It is also the duty of this officer to examine all parts of the rigging, report anything of importance to the master and take his orders, or, if it be a small and common matter, he will have the repairs or changes made at his own pleasure, as a thing of course. He must also see that there is a supply of small stuffs for the work, and have them made up when necessary, and also that there are instruments ready for every kind of labour, or for any emergency. In bad weather, he must have spare rope, blocks, tackles, sennit, carings, &c., at hand; or rather,

see that they are provided, the more immediate care of these things, when provided, belonging to the second mate.

From this description of a chief mate's duty, it will be seen that he ought always to be not only a vigilant and active man, but also well acquainted with all kinds of seaman's work, and a good judge of rigging.

In the working of the ship, when all hands are called and the master is on deck, the chief mate's place is on the fore-castle, where, under the general direction of the master, who never need leave the quarter-deck, he commands the forward part of the vessel, and is the organ of communication with the men aloft. In getting under way and coming to anchor, it is his duty to attend to the ground tackle, and see everything ready forward. The master, for instance, tells him to have the ship ready for getting under way, and to heave short on the cable. He then goes forward, orders all hands to be called, sees everything secured about decks, tackles got up and boats hoisted in and lashed, fish and cat tackles, pennant, davit, &c., and spare hawsers and rope, in readiness, orders the men to the windlass (the second mate taking a handspike with the rest), and stationing himself between the knight-heads, looks out for the cable, ordering and encouraging the men. When the cable is hove short, he informs the master, and, at the word from him, orders the men aloft to loose the sails, and gives particular directions to them when aloft, as to the sails, gaskets, overhauling rigging, &c. The sails being loosed, he awaits the order from the master, which is addressed to him rather than to the men, and has the windlass manned and the anchor hove up, giving notice to the master as soon as it is a-weight. When the vessel is under way, the master begins to take more immediate control, ordering the yards to be braced and filled, sail to be set, and the like. The chief mate also sees to the cutting and fishing of the anchors, to having the decks cleared up and everything secured.

In coming to anchor, very nearly the same duty falls upon the chief officer. He must see the anchors and cables ready for letting go, the master ordering how much chain is to be overhauled. He must look out that the boats are ready for lowering, the rigging clear for letting go, hauling and clewing, and that spare hawsers, kedges, warps, &c., are at hand. If anything goes wrong forward, he alone is looked to for an explanation. As the vessel draws in toward her anchoring ground, the master gives all the orders as to trimming the yards and taking in sail; and at all times, when on deck, has the entire charge of the man at the helm, it being the mate's duty only to see that a good seaman is there, and that the helm is relieved. As to the sails, the master will, for instance,

order—"Clew up the fore and main topsails!" The chief mate then gives the particular orders as to lowering and letting go the halyards, clewing down and up, overhauling rigging, &c. If both topsails were taken in at once, the second mate would attend to the main, unless the master should choose to look out for it himself. All being ready for letting go, the master gives the order—"Let go the anchor!" and the chief mate sees that it is done, has the chain payed out, reports how much is out, sees that the buoys watch, and the like. In furling the sails, the whole superintendence comes upon the mate, as the master would probably only tell him to have them furled. He has the rigging hauled taut, sends the men aloft, and, remaining on deck and forward, he gives his orders to them while on the yards, as to the manner of furling, and has the ropes hauled taut or let go on deck, as may be necessary.

These instances may serve to shew the distinctions between the duties of master and mate in the principal evolutions of a vessel. While in port, the chief mate has much more the control of the vessel than when at sea. As there is no navigating or working of the vessel to be done, the master has little to engage him, except transactions with merchants and others on shore, and the necessary general directions to the mate, as to the care of the ship. Beside the work upon the ship and rigging while in port, the chief mate has the charge of receiving, discharging, stowing and breaking out the cargo. In this he has the entire control, under the general directions of the master. It is his duty to keep an account of all the cargo, as it goes in and comes out of the vessel, and, as he generally gives receipts, he is bound to great care and accuracy. When cargo is coming in and going out, the chief mate stands in the gangway, to keep an account, and the second mate is down in the hold with some of the crew, breaking out, or stowing. The stowage, however, should still be somewhat under the chief mate's directions. While the master is on shore, the chief mate is necessarily commander of the ship, for the time, and though the law will extend his power proportionably for cases of necessity, yet, except in instances which will not admit of delay, he must not attempt to exercise any unusual powers, but should refer everything to the master's decision. It will be seen, by the laws, that the mate has no right to punish a man during the master's absence, unless it be a case in which delay would lead to serious consequences.

While in port, the chief mate stands no watch at night, but he should always be the first to be called in the morning, and should be up early and order the calling of all hands. In cleaning the ship, as washing down decks, &c., which is done the first thing in the morning, each mate, while at sea, takes charge of it in

his watch, in turn, as one or the other has the morning watch; but in port, the second mate oversees the washing down of the decks under the chief mate's general orders.

While at sea, in tacking, wearing, reefing topsails, &c., and in every kind of "all hands' work," when the master is on deck, the chief mate's place, as I have said, is forward. To give a further notion of the manner of dividing the command, I will describe the evolution of tacking ship. The master finds that the ship will not lay her course, and tells the chief mate to "see all clear for stays," or "ready about." Upon this, the chief mate goes forward, sends all hands to their stations, and sees everything clear and ready on the fore-castle. The master asks, "All ready forward?" and being answered, "Ay, ay, sir!" motions the man at the helm to put the wheel down, and calls out, "Helm 's a-lee!" The mate, answering immediately, "Helm 's a-lee," to let the master know he is heard and understood, sees that the head sheets are let go. At "Raise tacks and sheets!" from the master, the mate, and the men with him, let go the fore tack, while he looks after the overhauling of the other tack and sheet. He also sees to letting go the bowlines for "Let go and haul," and to getting down the head sheets when the ship is about, and trims the head yards, calling out to the men at the braces the usual orders, "Well the fore yard!" "Topsail yard, a small pull!" "Topgallant yard, well!" &c. The master usually trims the after yards.

In reefing topsails, the chief mate should not go aloft, but should keep his place forward, and look out for the men on the yards. I am aware that it is the custom in some classes of vessels, for the chief mate to take the weather earing of a course, especially if a topsail or the other course were reefing at the same time; yet this practice has never generally prevailed, and is now going out of date. I think I may say it is the opinion of all, masters, officers, and men, that it is better for the chief mate to remain on deck. He is also the organ of communication between the yards and the deck, and can look after the reefing to more advantage than the master can upon the quarter-deck, where he must stay to watch the helm and sails.

The chief mate is not required to work with his hands, like the second mate and the seamen. He will, of course, let go and belay ropes, and occasionally pull and haul with the men when working ship; but if there is much work to be done, his time and attention are sufficiently taken up with superintending and giving orders.

As to his duties as a watch-officer, it will be necessary to repeat the explanations partly given in the chapter upon the master's duties. The crew are divided equally into two watches, the larboard

and starboard; the larboard commanded by the chief mate, and the starboard by the second mate. These watches divide the day between them, being on and off duty every four hours. This is the theory of the time, but in fact, in nearly all merchant vessels, all hands are kept on deck and at work throughout the afternoon, from one o'clock until sundown; and sometimes, if there is a great deal to be done, as immediately before making port, or after an accident, all hands may be kept throughout the day. This is, however, justly considered hard usage, if long continued, since it gives the men but little time for sleep, and none for reading, or taking care of their clothes. Although all hands may be on deck and at work during a day or a half day, yet the division of time is still kept up. For instance, if it is the mate's watch from 8 A.M. to 12; although all hands should be up from 12 to 5 or 6, yet from 12 to 4 the starboard watch would be considered as "the watch on deck," and the larboard again after 4; and so on; and during those hours the wheel will always be taken by men belonging to the watch on deck, and if any particular duty is ordered to be done by "the watch," that watch which has a man at the helm, and which would have been the only one on deck had not all hands been kept, would do the duty. But though this division is kept up as to the crew and the helmsman, it is not so as to the officers; for when all hands are on deck, the chief mate is always the officer in command, to whichever watch the hour may properly belong. He accordingly looks after the ship, takes in and makes sail, and trims the yards, when all hands are on deck at work, as much in the hours of one watch as in those of the other, and he generally calls upon the men of either watch indifferently to pull and haul. But if only the starboard watch is on deck, though the chief mate should be on deck also, yet he will not interfere with the duties of that watch, but would leave the command of the vessel, and the weather side of the quarter-deck, to the second mate. Of course, whenever the master comes on deck, as I have said, in whatever watch it may be, or if all hands are up, he takes the weather side of the quarter-deck, and is considered as having charge of the ship; and the officer of the watch then gives no order with reference to the helm, trimming the yards, making sail, or the like; without a direction from the master.

It will be necessary to make some explanations as to the stations of the chief and second mate. I have said, that when all hands are called, the chief mate's place is the fore-castle, and the second mate's amidships, or at the braces on the quarter-deck. This is only in working ship with all hands; that is, in tacking, wearing, reefing, coming to anchor, getting under way, &c. Whenever the work is done, and the necessity for the officers' presence at these parts of

the vessel ceases, they return to their proper places on the quarter-deck. In a man-of-war there is always a lieutenant of the watch on the weather side of the quarter-deck; whatever work may be going forward, except in the single case of all hands being called to work ship; but it is not so in the merchant service. When the ordinary day's work is going forward, the mates must be about the decks or aloft, like the petty officers of a man-of-war; and it is only while no work is going forward, as in bad weather, on Sundays, or at night, that the officer of the watch keeps the quarter-deck. At these times he does so, and, if the master is not on deck, does not leave it, except for a short time, and for some necessary duty forward.

It will be seen in the third part of this book, that the law looks upon the chief mate as standing in a different relation to the master from that of the second mate or the men. He is considered a confidential person, to whom the owners, shippers, and insurers look, in some measure, for special duties and qualifications. The master, therefore, cannot remove him from office, except under very peculiar circumstances, and then must be able to prove a justifiable cause. One of these duties which the law throws upon him, is keeping the log-book. This is a very important trust, as the log-book is the depository of the evidence of everything that may occur during the voyage; and the position of the ship, the sail she was under, the wind, &c., at any one moment, may become matters of great consequence to all concerned. So it is with reference to anything that may occur between the master or officers and the crew. As to the manner of keeping the log, it is the custom for each officer at the end of his watch to enter upon the log-slate, which usually lies on the cabin table, the courses, distances, wind, and weather during his watch, and anything worthy of note that may have occurred. Once in twenty-four hours the mate copies from this slate into the log-book; the master, however, first seeing the slate, examining it, and making any corrections or observations he may choose. This practice of copying from the slate, which is first submitted to the master, has led, in too many instances, to the mate's becoming the mere clerk of the master, to enter on the log-book whatever the latter may dictate. This is wrong. It is very proper that the master should examine the slate, and suggest alterations as to the ship's reckoning, &c., if necessary; but it is important to all concerned, both to the owners, shippers, and insurers, on shore, and the crew of the vessel, that the independence of the mate, as the journalist of the voyage, should be preserved. The master, from the power of his office, can at all times make the situation of a mate who has displeased him extremely disagreeable, and from this cause has

great indirect influence over him; the law and the custom should, therefore, be strictly adhered to which rightly make the chief officer, in this respect, in a manner the umpire between the master and the crew, as well as between all on board and the parties interested on shore.

The law also makes the chief mate the successor to the master, in case the latter should die, or be unable to perform the duties of his office; and this without any action on the part of the crew. It is always important, therefore, that, to the practical seamanship and activity necessary for the discharge of the proper duties of his office, the mate should add a sufficient knowledge of navigation to be able to carry the ship on her voyage in case anything should happen to the master. Indeed, it has been doubted whether a vessel of the largest class, upon a long voyage, would be seaworthy with no navigator on board but the master.

Both the chief and second mates are always addressed by their surnames, with *Mr* prefixed, and are answered with the addition of *Sir*. This is a requirement of ship's duty, and an intentional omission of it is an offence against the rules and understanding of the service.

CHAPTER III.

SECOND AND THIRD MATES.

SECOND MATE.—Navigation—Station—Watch Duties—Day's Work—Working ship—Reefing—Furling—Duties aloft—Care of ship's furniture—Stores—Duties in port.
THIRD MATE.—Working ship—Day's work—Duties aloft; in port—Boating—Stores.

The duties of the second mate are, to command the starboard watch when the master is not on deck, and to lead the crew in their work. It is not necessary that he should be a navigator, or even be able to keep a journal, though he should know enough of navigation to keep the courses and distances during his watch, and to report them correctly on the slate. There are also many advantages in his being acquainted with navigation and able to keep the log, as, in case of the chief mate's meeting with any accident, or being removed from office. The second mate, however, does not, by law, necessarily succeed to the office of chief mate, as the chief mate does to that of master; but it lies with the master for the time being to appoint whom he chooses to the office of chief mate; yet, if the second mate

is capable of performing the duties of the office, he would ordinarily be appointed, as a matter of course.

When the starboard watch alone is on deck, and the master is below, the second mate has charge of the ship. When both watches are on deck, the chief mate is officer of the deck, to whichever watch the time may belong, according to the division of the hours. When the master is on deck, he commands, in one watch as well as in the other. But the second mate does not give up the charge of the vessel to the chief mate, if he should happen to be on deck during the starboard watch, unless all hands are up. While he has charge of the vessel in his watch, his duties are the common ones of a watch officer; that is, to have an eye to the helm, watch the weather, keep a general lookout round the horizon, see to the trimming of the yards and making and taking in of the light sails, give the master notice of anything important that occurs, heave the log, and keep an account of the winds, courses, rate of sailing, &c., and enter the same on the slate at the end of the watch. In these things the chief mate has no right to interfere, when it is not his watch on deck. But in all matters connected with the day's work and jobs, the second mate acts under the chief mate in his own watch, as that department belongs peculiarly to the chief mate. In working days, when the crew are employed about the ship and rigging, it is usual for the chief mate to tell the second mate what to do in his watch, and sometimes he remains on deck a few minutes to see to the commencement of the work. And while day's work is going forward, during the time that the chief mate has a watch below, as the second mate is expected to do jobs like a common seaman, it is the custom for the master to be on deck a good deal in the starboard watch and look after the vessel. While work is going forward, the second mate is about decks and aloft; but at other times, as at night, or on Sunday, or during bad weather, when day's work cannot be kept up, his place is on the quarter-deck; though still, he leaves it whenever any thing is to be done forward or aloft which requires the presence of a whole watch, as, setting or taking in a lower or topmast studding-sail, or any of the heavy sails.

When all hands are called to work ship, as in reefing, tacking, wearing, getting under way, coming to anchor, &c., the second mate's place is aft, at the fore and main braces and main and mizzen rigging; and generally, in all ship's duty, the chief mate and larboard watch belong forward, and the second mate and starboard watch aft. In tacking ship, the second mate looks out for the lee fore and main braces, sees them belayed to one pin and clear for letting go, lets go the main braces at "Mainsail haul!" and the fore at "Let go and haul!" He also steadies and weather braces as

the yards come up. He then sees to getting down the main tack, hauling out the main and mizzen bowlines, hauling aft the main sheet, and, in short, has charge of all the duty to be done upon the quarter-deck and in the waist.

In getting under way, the second mate takes a handspike at the windlass with the men, the place which custom has assigned him being the windlass-end. If anything is to be done with the braces while the men are heaving at the windlass, it is his duty to attend to it, as the chief mate must be looking out for the ground tackle.

In reefing, the second mate goes aloft with the men, and takes his place at the weather earing. This is his proper duty, and he will never give it up, unless he is a youngster, and not strong enough or sufficiently experienced to lead the men on the yard. As soon as the order is given to clew down for reefing, and the halyards are let go, if there are hands enough to haul out the reef-tackles, he should go aloft, see that the yard is well down by the lifts, and then lay out to the weather yard-arm, and get his earing rove by the time the men are upon the yard. He then hauls it out and makes fast. If both topsails are reefed at once, he goes to the main; but if one sail is reefed at a time, he goes with the men from one to the other, taking the weather earing of each. He also goes aloft to reef a course, and takes the weather earing of that, in the same manner. He is not expected to go upon the mizzen topsail yard, as the mizzen topsail is a small sail, and can be reefed by a few men, or by the light hands.

In furling sails, the second mate goes aloft to the topsails and courses, and takes the bunt, as that is the most important place in that duty. He is not expected to go upon the mizzen topsail yard for any service, and though in bad weather, and in case of necessity, he would do so, yet it would be out of the usual course. He might also, in heavy weather, assist in furling a large jib, or in taking the bonnet off; but he never furles a topgallantsail, royal, or flying jib. In short, the fore or main topsail and the courses are the only sails which the second mate is expected to handle, either in reefing or furling. And, as I said before, if the sails are reefed or furled by the watch, he leads the starboard watch on the main and maintop-sail yards, and the best man in the larboard watch leads them at the fore.

Although the proper place for the second mate on a yard is the bunt in furling, and the weather earing in reefing, and it is the custom to give him a chance at them at first, yet he cannot retain them by virtue of his office; and if he has not the necessary strength or skill for the stations, it is no breach of duty in a seaman to take them from him; on the contrary, he must always expect, in such

a case, to give them up to a smarter man. If the second mate is a youngster, as is sometimes the case, being put forward early for the sake of promotion, or if he is not active and ambitious, he will not attempt to take the bunt or weather earing.

In the ordinary day's work done on shipboard, the second mate works with his hands like a common seaman. Indeed, he ought to be the best workman on board, and to be able to take upon himself the nicest and most difficult jobs, or to shew the men how to do them. Among the various pieces of work constantly going forward on the vessel and rigging, there are some that require more skill and are less disagreeable than others. The assignment of all the work belongs to the chief mate, and if the second mate is a good seaman, (by which sailors generally understand a good workman upon rigging,) he will have the best and most important of these allotted to him; as, for instance, fitting, turning in and setting up rigging, rattling down, and making the neater straps, coverings, graftings, pointings, &c.; but if he is not a good workman, he will have to employ himself upon the inferior jobs, such as are usually assigned to ordinary seamen and boys. Whatever may be his capacity, however, he "carries on the work," when his watch alone is on deck, under directions previously received from the chief mate.

It is a common saying among seamen that a man does not get his hands out of the tar bucket by becoming second mate. The meaning of this is, that as a great deal of tar is used in working upon rigging, and it is always put on by hand, the second mate is expected to put his hands to it as the others do. If the chief mate were to take hold upon a piece of work, and it should be necessary to put any tar on it, he might call some one to tar it for him, as all labour by hand is voluntary with him; but the second mate would be expected to do it for himself, as a part of his work. These matters, small in themselves, serve to shew the different lights in which the duties of the officers are regarded by all seafaring men. There are, however, some inferior services, such as slushing down masts, sweeping decks, &c., which the second mate takes no part in; and if he were ordered to do so, it would be considered as punishment, and might lead to a difficulty.

In working ship, making and taking in sail, &c., the second mate pulls and hauls about decks with the rest of the men. Indeed, in all the work in which he is expected to join, he should be the first man to take hold, both leading the men and working himself. In one thing, however, he differs from the seamen; that is, he never takes the helm. Neither master nor mates ever take the wheel, but it is left to the men, who steer the vessel under the direction of the master or officer of the deck. He is also not expected to go

aloft to reeve and unreeve rigging, or rig in and out booms, when making or taking in sail, if there are men enough; but, as I have said, under ordinary circumstances, only goes aloft to reef or furl a topsail or course. In case, however, of any accident, as carrying away a mast or yard, or if any unusual work is going on aloft, as the sending up or down of topmasts or topsail yards, or getting rigging over the mast-head, sending down or bending a heavy sail in a gale of wind, or the like, then the second mate should be aloft to take charge of the work there, and to be the organ of communication between the men aloft and the chief mate, who should remain on deck, since he must superintend everything fore and aft, as well as aloft and aloft. Sending up or down royal and topgallant yards, being light work and done by one or two hands, does not call the second mate aloft; but if the topgallant masts are to be sent down, or a jibboom rigged in in bad weather, or any other work going on aloft of unusual importance or difficulty, the second mate should be there with the men, leading them in the work, and communicating with and receiving the orders from the deck.

During his own watch, if the master is not on deck, the second mate commands the ship, gives his orders and sees to their execution, precisely as the chief mate does in his; but, at the same time, he is expected to lend a hand at every "all-hands rope."

There is another important part of the duties of a second mate; which is, the care of the spare rigging, blocks, sails, and small stuffs, and of the instruments for working upon rigging, as, marlin-spikes, heavers, serving-boards, &c. It is the duty of the chief mate, as superintendent of the work, to see that these are on board, and to provide a constant supply of such as are made at sea; but when provided, it is the second mate's duty to look after them, to see them properly stowed away, and to have them at hand whenever they are called for. If, for instance, the chief mate orders a man to do a piece of work with certain instruments and certain kinds of stuff, the man will go to the second mate for them, and he must supply him. If there is no sailmaker on board, the second mate must also attend to the stowing away of the spare sails, and whenever one is called for, it is his duty to go below and find it. So with blocks, spare rigging, strands of yarns, and any part of a vessel's furniture, which an accident or emergency, as well as the ordinary course of duty, may bring into play.

So, also, with the stores. It is his duty to see to the stowing away of the water, bread, beef, pork, and all the provisions of the vessel; and whenever a new cask or barrel of water or provisions is to be opened, the second mate must do it. Indeed, the crew should never be sent into the hold or steerage, or to any part where there

is cargo or stores, without an officer. He also measures out the allowance to the men, at the rate ordered by the master. These latter duties, of getting out the stores and weighing or measuring the allowance, fall upon the third mate, if there is one, which is seldom the case in merchant vessels.

While in port, when cargo is taking in or discharging, the second mate's place is in the hold; the chief mate standing at the gangway, to keep account, and to have a general supervision. If the vessel is lying at anchor, so that the cargo has to be brought on or off in boats, then the boating duty falls upon the second mate, who goes and comes in the boats, and looks after the landing and taking off of the goods. The chief mate seldom leaves the vessel when in port. The master is necessarily on shore a good deal, and the second mate must come and go in the boats, so that the chief mate is considered as the ship-keeper. So, if a warp or kedg is to be carried out; or a boat is lowered at sea, as in boarding another vessel, or when a man has fallen overboard, in all such cases the second mate should take charge of the boat.

When in port, the second mate stands no anchor watch, but is expected to be on deck until eight o'clock, which is the hour at which the watch is usually set. If, however, the ship is short-handed, he would stand his watch; in which case it would probably be either the first or the morning watch.

The second mate lives aft, sleeping in the cabin, if there are no passengers, or else in a state-room in the steerage. He also eats in the cabin, but at a second table, taking charge of the vessel while the master and chief mate are at their meals. In packet ships the two mates generally eat together, by themselves, at an earlier hour than the master and passengers.

THIRD MATE.—Merchant vessels bound on long voyages, upon which there are many vicissitudes to be anticipated, sometimes carry a third mate; but this is unusual; so much so, that his duties have hardly become settled by custom. He does not command a watch, but belongs to the larboard watch, and assists the chief mate in his duties. He goes aloft with the larboard watch to reef and furl, as the second mate does with the starboard, and performs very nearly the same duties aloft and about decks. If he is a good seaman, he will take the earing and bunt on the head yards, as the second mate does on the after yards; and in the allotment of work he will be favoured with the most important jobs, if a good workman, otherwise, he will be put upon the work of an ordinary seaman. He is not expected to handle the light sails. He stands no helm, lives aft, and will look out for the vessel at meal times, if the second mate dines with the master and chief mate. While in port, he will be in

the hold or in the boats, as he may be needed, thus dividing the labour with the second mate. Perhaps his place would more properly be in the boats, as that is considered more in the light of fatigue duty. He also relieves the second mate of the charge of the stores, and sees to the weighing and measuring of the allowances; and in his watch on deck, he relieves the chief mate of the inferior parts of his duty, such as washing decks in the morning, and looking after the boys in clearing up the decks at night.

CHAPTER IV.

CARPENTER, COOK, STEWARD, ETC.

CARPENTER.—Working ship—Seaman's work—Helm—Duty aloft—Work at his trade—Station—Berth and mess—Standing watch.
SAILMAKER.—Seaman's work—Work at trade—Duty aloft—Standing watch—Berth and mess—Station.
STEWARD.—Duty in Passenger-ships—Care of cabin-table—Passengers—In other vessels—Master—Mate—Aloft—About decks—Working ship.
COOK.—Berth—Standing watch—Care of galley and furniture—Working ship—Duty aloft.

CARPENTER.—Almost every merchant vessel of a large class, or bound upon a long voyage, carries a carpenter. His duty is to work at his trade under the direction of the master, and to assist in all hands work according to his ability. He is stationed with the larboard or starboard watch, as he may be needed, though, if there is no third mate, usually with the larboard. In working ship, if he is an able seaman (as well as carpenter), he will be put in some more important place, as looking after the main tack and bowlines, or working the fore-castle with the mate; and if capable of leading his watch aloft, he would naturally take the bunt or an earing. He is not expected to handle the light sails, nor to go above the topsail yards, except upon the work of his trade. If he ships for an able seaman as well as carpenter, he must be capable of doing seaman's work upon the rigging and taking his turn at the wheel, if called upon, though he would not be required to do it except in bad weather, or in case the vessel should be shorthanded. If he does not expressly ship for seaman as well as carpenter, no nautical skill can be required of him; but he must still, when all hands are called, or if ordered by the master, pull and haul about decks, and go aloft in the work usual on such occasions, as reefing and furling. But the inferior duties of the crew, as sweeping decks, slushing, tar-

ring, &c., would not be put upon him, nor would he be required to do any strictly seaman's work, except taking a helm in case of necessity, or such work as all hands join in.

The carpenter is not an officer, has no command, and cannot give an order even to the smallest boy; yet he is a privileged person. He lives in the steerage, with the steward, has charge of the ship's chest of tools, and in all things connected with his trade is under the sole direction of the master. The chief mate has no authority over him, in his trade, unless it be in the case of the master's absence or disability. In all things pertaining to the working of the vessel, however, and as far as he acts in the capacity of a seaman, he must obey the orders of the officers as implicitly as any of the crew would; though, perhaps, an order from the second mate would come somewhat in the form of a request. Yet there is no doubt that he must obey the second mate in his proper place, as much as he would the master in his. Although he lives in the steerage, he gets his food from the galley, from the same mess with the men in the forecabin, having no better or different fare in any respect; and he has no right on the quarterdeck, but must take his place on the forecabin with the common seamen.

In many vessels, during fine weather, upon long voyages, the carpenter stands no watch, but "slops in" at night, is called at daylight, and works all day at his trade. But in this case, whenever all hands are called, he must come up with the rest. In bad weather, when he cannot well work at his trade, or if the vessel becomes short-handed, he is put in a watch, and does duty on deck, turning in and out with the rest. In many vessels, especially those bound on short voyages, the carpenter stands his watch, and, while on deck, works at his trade in the day-time; if the weather will permit, and at night, or in bad weather, does watch duty according to his ability.

SAILMAKER.—Some ships of the largest class carry a sailmaker, though usually the older seamen are sufficiently skilled in the trade to make and mend sails, and the master or chief mate should know how to cut them out. As to the sailmaker's duty on board, the same remarks will apply to him that were made upon the carpenter. If he ships for seaman as well as sailmaker, he must do an able seaman's duty, if called upon; and if he does not so ship, he will still be required to assist in all-hands work, such as working ship, taking in and making sail, &c., according to his ability; and in bad weather, or a case of necessity, he may be put with a watch and required to do ship's duty with the rest. In all-hands work he is mustered with either watch, according to circumstances, and the station allotted to him will depend upon his qualities as a seaman; and, as

with the carpenter, if he is a good seaman, he would naturally have some more important post assigned him. He is not expected to handle the light sails, nor to go above the topsail yards. Nor would the inferior duties of the crew, such as tarring, slushing, and sweeping decks, be put upon him. In bad weather, or in case of necessity, he may be mustered in a watch, and must do duty as one of the crew, according to his ability. Sometimes he stands no watch, and works at his trade all day, and at others he stands his watch, and when on deck in the day-time, and during good weather, works at his trade, and at night, or in bad weather, does duty with the watch. He usually lives in the steerage with the carpenter, and always takes his food from the galley. He has no command, and when on deck belongs on the forecabin with the rest of the crew. In the work of his trade, he is under the sole direction of the master, or of the chief mate in the master's absence; but in ship's work he is as strictly under the command of the mates as a common seaman is.

STEWARD.—The duties of the steward are very different in packet ships, carrying a large number of passengers, from those which are required of him in other vessels. It is his duty to see that the cabin and state-rooms are kept in order; to see to the laying and clearing of the tables; to take care of the dishes, and other furniture belonging to them; to provide the meals, under the master's direction, preparing the nicer dishes himself; to keep the general charge of the pantry and stores for the cabin; to look after the cook in his department; and, lastly, which is as important a part of his duty as any other, to attend to the comfort and convenience of the passengers. These duties, where there are many passengers, require all his time and attention, and he is not called upon for any ship's duty.

In vessels which are not passenger-ships, he does the work which falls to the under-stewards of the large packets; cleans the cabin and state-rooms, sets, attends, and clears away the table, provides everything for the cook, and has charge of the pantry, where all the table furniture and the small stores are kept. He is also the body servant of the master. His relation to the chief mate is somewhat doubtful; but the general understanding is, that, although he waits upon him when at table, and must obey him in all matters relating to the ship's work, yet he is not in any respect his servant. If the mate wishes any personal service done, he would ask it, or make some compensation.

In these vessels, the steward must come on deck whenever all hands are called, and in working ship, pulls and hauls about decks with the men. The main sheet is called the steward's rope, and this he lets go and hauls aft in tacking and wearing. In reefing

and furling, he is expected to go upon the lower and topsail yards, and especially the mizzen topsail yard of a ship. No seamanship is expected of him, and he stands no watch, sleeping in at night and turning out at daylight; yet he must do ship's duty according to his ability when all hands are called for working ship or for taking in or making sail. In these things he must obey the mates in the same way that a common seaman would, and is punishable for disobedience. The amount of ship's duty required of him depends, as I have said, upon the number of passengers.

Cook.—The cook almost always lives in the forecabin, though sometimes in the steerage with the steward. He stands no watch, sleeping in at night, and working at his business throughout the day. He spends his time mostly in the cook-house, which is called the "galley," where he cooks both for the cabin and forecabin. This, with keeping the galley, boilers, pans, kids, &c., clean and in order, occupies him during the day. He is called with all hands, and in tacking and wearing, works the fore sheet. He is also expected to pull and haul about decks in all-hands work, and is occasionally called from his galley to give a pull at a tackle or halyards. No seamanship can be required of him, but he is usually expected to go upon a lower or topsail yard in reefing or furling, and to assist according to his ability in working ship. In regular passenger-ships, however, as he is more exclusively employed in cooking, he is not required to do any duty about decks, except in a case of necessity or of common danger. In some other vessels, too, if strongly manned, neither the cook nor steward are sent upon the yards. Yet it can, without doubt, be required of them, by the custom and understanding of the service, to go upon a lower or topsail yard to reef or furl.

If there are on board armourers, coopers, or persons following any other trades, they take the same place and follow the same rules as to duty that govern the carpenter and sailmaker. In the merchant service, when "all hands" are called, it literally calls every one on board but the passengers; excepting, as I have said, in the case of the cook and steward of strictly passenger-ships. Those persons of whom any duty can be required, who do not stand a watch, but sleep in at night and work during the day, are called *idlers*. Beside turning out with all hands, the idlers are sometimes called up at night to help the watch on deck in any heavy or difficult duty, when it is not desirable to call the other watch, who may have had severe service. This is allowable, if practised only in cases of necessity, and not carried to an extreme.

CHAPTER V.

ABLE SEAMEN.

Grades of seafaring persons—Able seamen—Ordinary seamen—Boys—Shipping and rating—Over-rating—Requisites of an able seaman—Hand, reef, and steer—Work upon rigging—Sailmaking—Day's work—Working ship—Reefing and furling—Watch duty—Coasters and small vessels.

SEAFARING persons before the mast are divided into three classes,—able seamen, ordinary seamen, and boys or green hands. And it may be remarked here that all green hands in the merchant service are termed *boys*, and rated as such, whatever may be their age or size. In the merchant service, wages are about the same on long voyages, the same proportion between the classes being preserved, an ordinary seaman getting less than an able seaman, and the boys, from nothing up to less than ordinary seamen, according to circumstances. A full-grown man must ship for boy's wages upon his first voyage. It is not unusual to see a man receiving boy's wages and rated as a boy, who is older and larger than many of the able seamen.

The crews are not rated by the officers after they get to sea, but, both in the merchant service and in the navy, each man rates himself when he ships. The shipping articles, in the merchant service, are prepared for each class, and a man puts his name down and contracts for the wages and duty of a seaman, ordinary seaman, or boy, at his pleasure. Notwithstanding this license, there are very few instances of it being abused; for every man knows that if he is found incompetent to perform the duty he contracts for, his wages can not only be reduced to the grade for which he is fitted, but that something additional will be deducted for the deception practised upon all concerned, and for the loss of service and the numerous difficulties incurred, in case the fraud is not discovered until the vessel has got to sea. But, still more than this, the rest of the crew consider it a fraud upon themselves; as they are thus deprived of a man of the class the vessel required, which makes her short-handed for the voyage, and increases the duty put upon themselves. If, for instance, the articles provide for six able seamen, the men expect as many, and if one of the six turns out not to be a seaman, and is put upon inferior work, the duties which would commonly be done by seamen will fall upon the five. The difficulty is felt still more in the watches; as, in the case I have supposed, there would be in one watch only two able seamen instead of three,

and if the delinquent was not a capable helmsman, the increased duty at the wheel alone would be, of itself, a serious evil. The officers also feel at liberty to punish a man who has so imposed upon all hands, and accordingly every kind of inferior and disagreeable duty is put upon him; and, as he finds no sympathy from the crew, his situation on board is made very unpleasant. Indeed, there is nothing a man can be guilty of, short of a felony, to which so little mercy is shown on board ship; for it is a deliberate act of deception, and one to which there is no temptation, except the gain of better wages.

The common saying that to hand, reef, and steer, makes a sailor, is a mistake. It is true that no man is a sailor until he can do these things; yet to ship for an able seaman he must, in addition to these, be a good workman upon rigging. The rigging of a ship requires constant mending, covering and working upon in a multitude of ways; and whenever any of the ropes or yards are chafing or wearing upon it, it must be protected by "chafing gear." This chafing gear consists of worming, parcelling, serving, rounding, &c.; which requires a constant supply of small stuffs, such as foxes, sennit, spunyarn, marline, and the like, all which is made on board from condemned rigging and old junk. There is also a great deal of new rigging to be cut and fitted on board, which requires neat knots, splices, seizings, coverings, and turnings in. It is also frequently necessary to set up the rigging in one part of the vessel or another; in which case it must be seized or turned in afresh. It is upon labour of this kind that the crew is employed in the "day's work" and jobs which are constantly carried forward on board. A man's skill in this work is the chief test of his seamanship; a competent knowledge of steering, reefing, furling, and the like, being taken for granted, and being no more than is expected of an ordinary seaman. To put a marlinspike in a man's hand and set him to work upon a piece of rigging, is considered a fair trial of his qualities as an able seaman.

There is, of course, a great deal of difference in the skill and neatness of the work of different men; but I believe I am safe in saying that no man will pass for an able seaman in a square-rigged vessel, who cannot make a long and short splice in a large rope, fit a block-strap, pass seizings to lower rigging, and make the ordinary knots, in a fair, workmanlike manner. This working upon rigging is the last thing to which a lad training up to the sea is put, and always supposes a competent acquaintance with all those kinds of work that are required of an ordinary seaman or boy. A seaman is generally expected to be able to sew upon a sail, and few men ship for seamen who cannot do it; yet, if he is competent in

other respects, no fault can be found with an able seaman for want of skill in sailmaking.

In allotting the jobs among the crew, reference is always had to a man's rate and capacity; and it is considered a decided imputation upon a man to put him upon inferior work. The most difficult jobs, and those requiring the neatest work, will be given to the older and more experienced among the seamen; and of this none will complain; but to single out an able seaman and keep him at turning the spunyarn winch, knotting yarns or picking oakum, while there are boys on board, and other properly seaman's work going forward at the same time, would be looked upon as punishment, unless it were temporarily, or from necessity, or while other seamen were employed in the same manner. Also, in consideration of the superior grade of an able seaman, he is not required to sweep down the decks at night, slush the masts, &c., if there are boys on board and at hand. Not that a seaman is not obliged to do these things. There is no question but that he is, just as much as to do any other ship's work; and if there are no boys on board or at hand at the time, or from any other cause it is reasonably required of him, no good seaman would object, and it would be a refusal of duty to do so, yet if an officer were deliberately, and without necessity for it, when there were boys about decks at the time, who could do the work as well, to order an able seaman to leave his work and sweep down the decks, or slush a mast, it would be considered as punishment.

In working ship, the able seamen are stationed variously; though, for the most part, upon the fore-castle, at the main tack or fore and main lower and topsail braces; the light hands being placed at the cross-jack and fore and main topgallant and royal braces. In taking in and making sail, and in all things connected with the working of a ship, there is no duty which may not be required of an able seaman; yet there are certain things requiring more skill or strength, to which he is always put, and others which are as invariably assigned to ordinary seamen and boys. In reefing, the men go out to the yard-arms, and the light hands stand in toward the slings; while in furling, the hunt and quarters belong to the able seamen, and the yard-arms to the boys. The light hands are expected to loose and furl the light sails, as royals, flying jib and mizzen topgallant sail, and the men seldom go above the cross-trees, except to work upon the rigging, or to send a mast or yard up or down. The fore and main topgallant sails, and sometimes the flying jib of large vessels, require one or more able seamen for furling, but are loosed by light hands. In short, as to everything connected with working ship, making and taking in sail, &c., one general rule may be laid

down. A seaman is obliged to obey the order of the master or officer, asking no questions and making no objection, whether the duty to which he is ordered be that which properly belongs to an able seaman or not; yet as able seamen alone can do the more nice and difficult work, the light hands, in their turn, are expected to do that which requires less skill and strength. In the watch on deck at night, for instance, the able and ordinary seamen steer the ship, and are depended upon in case of any accident, or if heavy sails are to be taken in or set, or ropes to be knotted or spliced; and in consideration of this, if there is light work to be done, as coiling up rigging about decks, holding the log-reel, loosing or furling a light sail, or the like, the boys are expected to do it, and should properly be called upon by the officer, unless from some circumstance it should be necessary to call upon a man. Yet, as I have said before, if ordered, the seaman must do the thing, under any circumstances, and a refusal would be a refusal of his duty.

No man is entitled to the rate or wages of an able seaman who is not a good helmsman. There is always a difference in a ship's company as to this duty, some men being more steady, careful, and expert helmsmen than others; and the best quality cannot be required of every able seaman; yet if, upon fair trial, in bad weather, a man is found incapable of steering the ship, under circumstances not extraordinary, he would be considered by all on board to have failed of his duty. It should be remembered, however, that there are times when the very best helmsman is hardly able to steer a ship, and if a vessel is out of trim or slow in her motions, no skill can keep her close to her course.

An able seaman is also expected to do all the work necessary for reefing, furling, and setting sail, to be able to take a bunt or earing, to send yards and masts up and down, to rig in and out booms, to know how to reeve all the running rigging of a ship, and to steer, or pull an ear in a boat.

The standard of seamanship, however, is not so high in coasting vessels and those of a smaller class bound upon short voyages, in which all the work that is necessary upon the vessel or rigging is usually done when in port by people hired from on shore. In such vessels many men ship for able seamen, and are considered, upon the whole, competent, if they are able-bodied, and can hand, reef, and steer, who perhaps would only have shipped for ordinary seamen in vessels bound upon long voyages. In all large-class vessels, and in vessels of almost any class bound upon long voyages, the standard of seamanship is very nearly what I have before described.

CHAPTER VI.

ORDINARY SEAMEN.

Requisites—Hand, reef, and steer—Loose, furl, and set sails—Reeve rigging—Work upon rigging—Watch duty.

An ordinary seaman is one who, from not being of sufficient age and strength, or from want of sufficient experience, is not quite competent to perform all the duties of an able seaman, and accordingly receives a little less than full wages, and does not contract for the complete qualities of an able seaman. There is a large proportion of ordinary seamen in the navy. This is probably because the power of the officers is so great upon their long cruises to detect and punish any deficiency, and because, if a man can by any means be made to appear wanting in capacity for the duty he has shipped to perform, it will justify a great deal of hard usage. Men, therefore, prefer rather to underrate than to run any risk of overrating themselves.

An ordinary seaman is expected to hand, reef, and steer, under common circumstances, (which includes "boxing the compass;") to be well acquainted with all the running and standing rigging of a ship; to be able to reeve all the studdingsail gear, and set a topgallant or royal studdingsail out of the top; to loose and furl a royal, and a small topgallant sail or flying jib; and perhaps, also, to send down or cross a royal yard. An ordinary seaman need not be a complete helmsman, and if an able seaman should be put in his place at the wheel in very bad weather, or when the ship steered with difficulty, it would be no imputation upon him, provided he could steer his trick creditably under ordinary circumstances. In reefing or furling the courses and topsails, an ordinary seaman would not take the bunt or an earing, if there were able seamen on the yard; and perhaps, in the largest sized vessels, it would not be expected of him to pass an earing, or make up the bunt of a fore or main topsail or course in bad weather, yet he should know how to do both, and should be able to take a bunt or earing on the mizzen topsail yard, and on any topsail or lower yard of a small vessel.

It is commonly understood that an ordinary seaman need not be a workman upon rigging. Yet there are probably few men capable of performing the duties of an ordinary seaman, as above detailed, who would not be somewhat acquainted with work upon rigging, and who could not do the simpler parts of it, such as serving and splicing small ropes, passing a common seizing, or the like; and it

is always expected that an ordinary seaman shall be able to make all the hitches, bends, and knots in common use: such as, two half-hitches, a rolling hitch, timber hitch, clove hitch, common bend, and bowline knot. He would also be thought deficient if he could not draw, knot, and ball up yarns, and make spun yarn, foxes, and common sennit. Yet it is said that if he can steer his trick, and do his duty creditably in working ship and taking in and making sail, he is entitled to the rate and wages of an ordinary seaman, though he cannot handle a marlinspike or serving-board.

The duty upon which an ordinary seaman is put, depends a good deal upon whether there are boys or green hands on board or not. If there are, he has a preference over them, as an able seaman has over him, in the light work; and since he stands his helm regularly and is occasionally set to work upon rigging with the men, he will be favoured accordingly in the watch and in common duty about decks. Yet the distinction between ordinary seamen and boys is not very carefully observed in the merchant service, and an ordinary seaman is frequently called upon for boy's duty, though there are boys on board and at hand. If an officer wished for some one to loose a royal, take a broom and sweep the decks, hold the log-reel, coil up a rope, or the like, he would probably first call upon a boy, if at hand; if not, upon an ordinary seaman; but upon either of them indifferently, before an able seaman.

If there are no boys on board, the ordinary seamen do boys' duty; the only difference being, that if they take their trick at the wheel, and do other ordinary seaman's work, the able seamen are not so much preferred over them, as over mere boys and green hands.

CHAPTER VII.

BOYS.

Requisites—Wages—Watch—Day's work—Working ship—Helm—Duties aloft and about decks.

Boy is the term, as I have said before, for all green hands, whatever may be their size or age; and also for boys, who, though they have been at sea before, are not large and strong enough for ordinary seamen. It is the common saying, that a boy does not ship to know anything. Accordingly, if any person ships as a boy, and upon boy's wages, no fault can be found with him, though he should

not know the name of a rope in the ship, or even the stern from the stern. In the navy, the boys are divided into three classes, according to their size and experience, and different duties are put upon them. In the merchant service, all except able and ordinary seamen are generally upon the same wages, though boys' wages vary in different voyages. Sometimes they get nothing, being considered as apprentices; and from that their wages rise according to their capability. Whatever boys' wages may be, a person who ships for them for that voyage, whether more or less, is rated as boy, and his duty is according to his rate.

In the ordinary day's work, the boys are taught to draw and knot yarns, make spun yarn, foxes, sennit, &c., and are employed in passing a ball or otherwise assisting the able seamen in their jobs. Slushing masts, sweeping and clearing up decks, holding the log-reel, coiling up rigging, and loosing and furling the light sails, are duties that are invariably put upon the boys or green hands. They stand their watches like the rest, are called with all hands, go aloft to reef and furl, and work whenever and wherever the men do, the only difference being in the kind of work upon which they are put. In reefing, the boys lay in towards the slings of the yard, and in furling, they go out to the yard-arms. They are sent aloft immediately, as soon as they get to sea, to accustom them to the motion of a vessel, and to moving about in the rigging and on the yards. Loosing and furling the royals, setting topgallant studdingsails and reefing the gear, shaking out reefs, learning the names and uses of all the ropes, and to make the common hitches, bends, and knots, reefing all the studdingsail gear, and rigging in and out booms, and the like, is the knowledge first instilled into beginners. There is a good deal of difference in the manner in which boys are put forward in different vessels. Sometimes, in large vessels, where there are plenty of men, the boys never take the wheel at all, and are seldom put upon any but the most simple and inferior duties. In others, they are allowed to take the wheel in light winds, and gradually, if they are of sufficient age and strength, become regular helmsmen. So, also, in their duties aloft; if they are favoured, they may be kept at the royals and topgallant sails, and gradually come to the earing of a mizzen topsail. In work upon rigging, however, a green hand makes but little progress beyond ropayarns and spun yarn, during his first voyage; since there are men enough to do the jobs, and he can be employed to more advantage in the inferior work, and in making and taking in light sails, steering in light winds, &c.; a competent knowledge of which duty is sufficient to enable him to ship for an ordinary seaman upon the next voyage. It is generally while in the grade of ordinary seaman that the use of the marlinspike

is learned. Whatever knowledge a boy may have acquired, or whatever may be his age or strength, so long as he is rated as a boy, (and the rates are not changed during a voyage unless a person changes his ship,) he must do the inferior duties of a boy. If decks are to be cleared up or swept, rigging to be coiled up, a man is to be helped in his job, or any duty to be done aloft or about decks which does not require the strength or skill of a seaman, a boy is always expected to start first and do it, though not called upon by name.

CHAPTER VIII.

MISCELLANEOUS.

Watches—Calling the watch—Bells—Helm—Answering—Stations—Food—Sleep.

WATCHES.—A watch is a term both for a division of the crew, and for the period of time allotted to such division. The crew are divided into two watches, larboard and starboard; the larboard commanded by the chief mate, and the starboard by the second mate. These watches divide the time between them, being on and off duty, or, as it is termed, on deck and below, every other four hours. If, for instance, the chief mate with the larboard watch have the first night watch, from eight to twelve, at the end of the four hours the starboard watch is called, and the second mate takes the deck, while the larboard watch and the chief mate go below until four in the morning. At four they come on deck again, and remain until eight; having what is called the "morning watch." As they will have been on deck eight hours out of the twelve, while the starboard watch, who had the middle watch, from twelve to four, will only have been up four hours, they are entitled to the watch below from eight till twelve, which is called the "forenoon watch below." Where this alteration of watches is kept up throughout the twenty-four hours, four hours up and four below, it is called having "watch and watch." This is always given in bad weather, and when day's work cannot be carried on; but in most merchant vessels, it is the custom to keep all hands from one P.M. until sundown, or until four o'clock. In extreme cases, also, all hands are kept throughout the day; but the watch which has had eight hours on deck at night should always be allowed a forenoon watch below, if possible.

The watch from four to eight, P.M., is divided into two half-watches of two hours each, called *dog watches*. The object of this

is to make an uneven number of watches, seven instead of six; otherwise the same watch would stand during the same hours for the whole voyage, and those who had two watches on deck the first night would have the same throughout the trip. But the uneven number shifts the watches. The dog-watches coming about sundown, or twilight, and between the end of a day's work and the setting of the night-watch, are usually the time given for recreation,—for smoking, telling yarns, &c., on the fore-castle; things which are not allowed during the day.

CALLING THE WATCH.—As soon as eight bells are struck, the officer of the watch gives orders to call the watch, and one of the crew goes to the scuttle, knocks three times, and calls out in a loud voice, "All the starboard (or larboard) watch, ahoy!" or, "All starboardlines, ahoy!" or something of the kind, and adds, "Eight bells," or the hour; usually, also, a question, to know whether he is heard, as, "Do you hear the news there, sleepers?" Some one of the watch below must answer, "Ay, ay!" to shew that the call has been heard. The watch below is entitled to be called in a loud and audible voice, and in the usual manner; and unless called, they cannot be expected to come up. They must also turn out at once and come on deck as soon as they are called, in order that the other watch may go below, especially as they are never called until the hour has expired, and since some minutes are allowed for turning out, dressing, and getting on deck. The man whose turn it is to take the helm goes immediately aft, and ought to be the first on deck, as the two hours' duty at the helm at night is tedious, and entitles a man to be speedily relieved. It is considered a bad trait in a man to be slack in relieving the helm. The relieving the helm is also the sign that the watch is changed, and no man is permitted to go below until that has been done. It is a man's watch on deck so long as one of his watch is at the wheel.

BELLS.—The time at sea is marked by bells. At noon, eight bells are struck, that is, eight strokes are made upon the bell; and from that time it is struck every half-hour throughout the twenty-four, beginning at one stroke and going as high as eight, adding one at each half-hour. For instance, twelve o'clock is eight bells, half-past twelve is one bell, one o'clock is two bells, half-past one three bells, and so on until four o'clock, which will be eight bells. The watch is then out, and for half-past four you strike one bell again. A watch of four hours therefore runs out the bells. It will be observed, also, that even bells come at the full hours, and the odd bells at the half-hours. For instance, eight bells is always twelve, four, or eight o'clock; and seven bells always half-past three, half-past seven, or half-past eleven.

The bells are sounded by two strokes following one another quickly, and then a short interval; after which, two more; and so on. If it is an odd number, the odd one is struck alone, after the interval. This is to make the counting more sure and easy; and, by this means, you can, at least, tell whether it is an hour or a half-hour.

HELM.—Neither the master nor mates of a merchant vessel ever take the helm. The proper helmsmen are the able and ordinary seamen. Sometimes the carpenter, sailmaker, &c., if they are seamen, are put at the helm; also the boys, in light winds, for practice. Each watch steers the ship in its turn, and the watch on deck must supply the helmsman, even when all hands are called. Each man stands at the helm two hours, which is called his *trick*. Thus, there are two tricks in a watch. Sometimes, in very cold weather, the tricks are reduced to one hour; and, if the ship steers badly, in a gale of wind, two men are sent to the wheel at once. In this case, the man who stands on the weather side of the wheel is the responsible helmsman, the man at the lee wheel merely assisting him by heaving the wheel when necessary.

The men in the watch usually arrange their tricks among themselves, the officers being satisfied if there is always a man ready to take the wheel at the proper time. In steering, the helmsman stands on the weather side of a wheel and on the lee side of a tiller. But when steering by tiller-ropes with no hitch round the tiller-head, or with a tackle, as in heavy gale and bad sea, when it is necessary to ease the helm a good deal, it is better to stand up to windward and steer by the parts of the tackle or tiller-ropes.

In relieving the wheel, the man should come aft on the lee side of the quarter-deck, (as indeed he always should unless his duty lies to windward,) go to the wheel behind the helmsman and take hold of the spokes, so as to have the wheel in command when the other lets go. Before letting go, the helmsman should give the course to the man that relieves him in an audible voice, and the new man should repeat it aloud just as it was given, so as to make it sure that he has heard correctly. This is especially necessary, since the points and half-points are so much alike that a mistake might easily be made. It is the duty of the officer of the watch to be present when the wheel is relieved, in order to see that the course is correctly reported and understood; which is another reason why the course should be spoken by both in a loud tone. It is unseamanlike and reprehensible to answer, "Ay, ay!" or, "I understand," or the like, instead of repeating the course.

If a vessel is sailing close-hauled and does not lay her course, the order is, "Full and by!" which means, by the wind, yet all full.

If a vessel lays her course, the order then is her course, as N. W. by W., E. by S., and the like.

When a man is at the wheel, he has nothing else to attend to but steering the ship, and no conversation should be allowed with him. If he wishes to be relieved during his trick, it should not be done without the permission of the officer, and the same form of giving and repeating the course should be gone through, though he is to be absent from the helm but a minute or two.

If an order is given to the man at the wheel as to his steering, he should always repeat the order, distinctly, that the officer may be sure he is understood. For instance, if the order is a new course, or, "Keep her off a point!" "Luff a little!" "Ease her!" "Meet her!" or the like, the man should answer by repeating the course or the order, as "Luff a little, sir," "Meet her, sir," &c., and should not answer, "Ay, ay, sir!" or simply execute the order as he understands it. This practice of repeating every, even the most minute order at the wheel, is well understood among seamen, and a failure or refusal to do so is an offence sometimes leading to disagreeable results.

If, when the watch is out and the other watch has been called, all hands are detained for any purpose, as, to reef a topsail, to set studding-sails, or the like, the helm should not be relieved until the work is done and the watch ready to go below.

ANSWERING.—The rule has just been stated which requires a man at the wheel to answer by repeating distinctly the order given him. The same rule applies to some other parts of a seaman's duty, though to none so strictly, perhaps, as to that. In tacking, where the moment of letting go a rope or swinging a yard is very important, the order of the master is always repeated by the officer on the forecastle. This enables the master to know whether he is heard and understood, to repeat his order if it is not answered at once, and to correct any mistake, or obviate some of its consequences. The same may be said generally of every order to the proper or instant execution of which unusual importance is attached. If, for instance, a man is stationed by a rope to let it go upon an order given, if an order is addressed to him which he supposes to be for that purpose, he should answer, "Let go, sir!" and usually adds, "All gone!" as soon as it is done. Green hands should bear in mind that whenever an order is of a kind which ought to be repeated, it must be so, without reference to a man's distance from the officer who gives the order, but just as much if standing a few feet from him as if at the mast-head, since, upon the whole, the chance of misapprehension is not much less in one case than in the other.

The common run of orders, however, are sufficiently answered by

the usual reply of "Ay, ay, sir!" which is the proper seaman's answer, where the repetition of the order is not necessary. But *some answer or other should always be made to an order.* This is a rule difficult to impress upon beginners, but the reasonableness of it is obvious, and it is well understood among all seafaring persons; and even though an officer should see that the man was executing his order, he still would require, and has a right to demand, a reply. The rule is as strictly observed by the master and officers between themselves, as it is required by them of the men; for the reason is the same. It is almost unnecessary to say that the addition "Sir" is always to be used in speaking to the master or to either of the mates. The mates in their turn use it to the master. "Mr" is always to be prefixed to the name of an officer, whether chief or second mate.

In well-disciplined vessels, no conversation is allowed among the men when they are employed at their work; that is to say, it is not allowed in the presence of an officer or of the master; and although, when two or more men are together aloft, or by themselves on deck, a little low conversation might not be noticed, yet if it seemed to take off their attention, or to attract the attention of others, it would be considered a breach of duty. In this respect the practice is different in different vessels. Coasters, fishermen, or small vessels on short voyages, do not preserve the same rule; but no seaman who has been accustomed to first-class ships will object to a strictness as to conversations and laughing, while at day's work, very nearly as great as is observed in a school. While the crew are below in the fore-castle, great license is given them; and the severest officer will never interfere with the noise and sport of the fore-castle, unless it is a serious inconvenience to those who are on deck. In working ship, when the men are at their stations, the same silence and decorum is observed. But during the dog-watches, and when the men are together on the fore-castle at night, and no work is going forward, smoking, singing, telling yarns, &c., are allowed; and, in fact, a considerable degree of noise and *shylarking* is permitted, unless it amounts to positive disorder and disturbance.

It is a good rule to enforce, that whenever a man aloft wishes anything to be done on deck, he shall hail the officer of the deck, and not call out, as is often done, to any one whom he may see about decks, or generally to have a thing done by whoever may happen to hear him. By enforcing this rule the officer knows what is requested, and may order it and see that it is done as he thinks fit; whereas, otherwise, any one about decks, perhaps a green hand, may execute the order upon his own judgment and after his own manner.

STATIONS.—The proper place for the seamen when they are on deck and there is no work going forward, is on the fore-castle. By this is understood so much of the upper deck as is forward of the after fore-shroud. The men do not leave this to go aft or aloft unless ship's duty requires it of them. In working ship, they are stationed variously, and go wherever there is work to be done. The same is the case in working upon rigging. But if a man goes aft to take the wheel, or for any other purpose which does not require him to go to windward, he will go on the lee side of the quarter-deck.

FOOD, SLEEP, &c.—The crew eat together in the fore-castle, or on deck, if they choose, in fine weather. Their food is cooked at the galley, and they are expected to go to the galley for it and take it below or upon the fore-castle. The cook puts the eatables into wooden tubs called "kids," and of these there are more or less, according to the number of men. The tea or coffee is served out to each man in his tin pot, which he brings to the galley. There is no table, and no knives nor forks to the fore-castle; but each man helps himself, and furnishes his own eating utensils. These are usually a tin pot and pan, with an iron spoon.

The usual time for breakfast is seven bells, that is, half-past seven o'clock in the morning. Consequently, the watch below is called at seven bells, that they may get breakfast and be ready to take the deck at eight o'clock. Sometimes all hands get breakfast together at seven bells; but in bad weather, or if watch and watch is given, it is usual for the watch below to breakfast at seven bells, and the watch on deck at eight bells, after they are relieved. The dinner hour is twelve o'clock, if all hands get dinner together. If dinner is got "by the watch," the watch below is called for dinner at seven bells (half-past eleven), and the other watch dine when they go below, at twelve.

If all hands are kept in the afternoon, or if both watches get supper together, the usual hour is three bells, or half-past five; but if supper is got by the watch, three bells is the time for one watch and four for the other.

In bad weather, each watch takes its meals during the watch below, as, otherwise, the men would be liable to be called up from their meals at any moment.

As to the time allowed for SLEEP; it may be said, generally, that a sailor's watch below is at his own disposal to do what he chooses in, except, of course, when all hands are called. The meal times, and time for washing, mending, reading, writing, &c., must all come out of the watch below; since, whether there is work going forward or not, a man is considered as belonging to the ship in his watch on

deck. At night, however, especially if watch and watch is not given, it is the custom in most merchant vessels, in good weather, to allow the watch to take naps about the decks, provided one of them keeps a look-out, and the rest are so that they can be called instantly. This privilege is rather a thing winked at than expressly allowed, and if the man who has the look-out falls asleep, or if the rest are slow in mustering at a call, they are all obliged to keep awake. In bad weather, also, or if near land, or in the track of other vessels, this privilege should not be granted. The men in each watch usually arrange the helms and look-outs among themselves, so that a man need not have a helm and a look-out during the same watch. A man should never go below during his watch on deck, without permission; and if he merely steps down into the fore-castle for an instant, as, to get his jacket, he should tell some one, who may speak to him at once, if the watch is called upon.

PART III.

CHAPTER I.

LAWS RELATING TO THE PROPERTY OF SHIPS AND THE DUTIES OF MASTERS AND MARINERS.

Title—Builder's certificate—Bill of sale—Preparatives for registry—Owners—First registry—Certificate of registry and provisional certificate—National character—Transfers and transmissions—(1.) *Transfers*—(2.) *Transmissions*—Mortgages—Certificates of mortgage and of sale—Registry anew, and transfer of registry—(1.) *Registry anew*—(2.) *Transfer of registry*—Registry, miscellaneous—Boats for sea-going ships—Lights and fog-signals, &c.—Build and equipment of steam ships.

TITLE—BUILDER'S CERTIFICATE—BILL OF SALE.—The property in ships,—either acquired by building or by purchase,—the share or shares of a ship,—is always evidenced by written documents, in the case of a newly-built British ship by the builder's certificate, giving a true account of the proper denominations and the tonnage of said ship, as estimated by him (see the rules for the measurement of tonnage, Appendix, Note A), and of the time when, and the place where, such ship was built, and the name of the party (if any) on whose account he has built the same;—and in the case of a ship or share acquired by purchase (whether a British or foreign built ship), the property is proved by the bill of sale, under which the ship or share becomes vested in the person requiring to be registered under this bill. This bill of sale is the universal instrument of transfer in the usages of all maritime countries, and is especially required by the British statute law, and a statutory form prescribed (17 and 18 Vict., c. 104, § 55). Upon the first registry, and in addition to the builder's certificate, the party requiring to be registered as owner of either a ship or share must make the statutory declaration, and deliver the surveyor's certificate to the registrar, both in the forms annexed to the act (§ 33, 36).

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ARTICLES:

Huycke, Harold; "The Great Star Fleet." (Reprinted from Yachting Magazine, February, 1960 by the San Francisco Maritime Museum Association)

Excellent article that details the activities and history of the Alaska Packer's Association and Balclutha's involvement with A.P.A.

ARTICLES (Continued):

Roppel, Patricia; "Loring." The Alaska Journal (Summer, 1975 Volume 5, Number 3.)

A good source for reading about the Alaska canneries in towns such as Loring. Describes what life on shore was like for the crews of the Alaska Packers Fleet.

MANUSCRIPTS:
(BOUND VOLUMES)

US BALCLUTHA: Lists of Voyages

VM

6.5 A scrapbook of correspondence and materials that lists all of
B3L5 Balclutha's voyages from 1887 to 1930. Library, National Maritime
pam Museum, San Francisco.

US BALCLUTHA: History

VM

6.5 A scrapbook of correspondence and materials relating to the history
B3H5 of the Balclutha. Library, National Maritime Museum, San Francisco.
pam

US BALCLUTHA: Technical Information

VM

6.5 A scrapbook of correspondence and materials relating to the specifications,
B31T4 rigging, and equipment of the Balclutha. Library, National Maritime
pam Museum, San Francisco.

Durkee, Alfred; "Beating Out of Bristol Channel in the Winter of '94: Ship
Balclutha." 7 pages. From the Balclutha:History Scrapbook.

Durkee, Alfred; "Life on a Sailing Ship." 25 pages. From the Balclutha: History
Scrapbook.

Lyman, John (?); "History of the Ship Balclutha." Large, 8½ x 11 typescript
Manuscript in the Balclutha: History Scrapbook.

Johansen, Captain C.; Untitled Reminiscence of Sailing on the Star of Alaska.
18 pages. Library, National Maritime Museum, San Francisco.

Pearce, Norman; "Before the Mast in the Balclutha During Her Maiden Voyage
to San Francisco, 1887" 5 pages. From the Balclutha: History
Scrapbook.

BALCLUTHA
BIBLIOGRAPHY

FILMS:

ABOUT THE BALCLUTHA:

"Saga of a Ship" (16mm, Color, Sound) Approximately 30 minutes. A somewhat dated and dramatic account of the restoration of the Balclutha.

"Untitled" (16mm, B & W, Sound) Approximately, 15 minutes. An interview with Captain Fred Klebingat on board the Balclutha. Klebingat was the Captain of the ship Falls of Clyde and is one the foremost experts in Maritime History today.

"Balclutha Footage" (16mm, B & W) Approximately 5 minutes.

FILMS ABOUT CAPE-HORNERS, SQUARE RIGGERS, ALASKA PACKERS:

"Around the Horn in a Square-Rigger." (16mm, B & W) Excellent film, shot by Alan Villiers, of the Parma beating around Cape Horn in 1932. 20 minutes.

"Treasure Hunting Alaska Waters." (16mm, B & W, Sound) Approximately 17 minutes. A Del-Monte Foods film about the Alaska Salmon Fisheries.

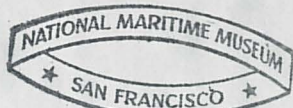
"Golden Harvest." (16mm, B & W) Approximately 20 minutes. A Del-Monte Foods films about the Alaska Packers.

"Ice-kist Treasures." (16mm, B & W) Approximately 60 minutes. About the Alaska Packers with extensive footage of the Alaska fisheries.

All films are available from the Photo Librarian at the National Maritime Museum, San Francisco.

INTERVIEWS (TAPED)

Tape Number A88: "Interview with Otto Nelson" Otto Nelson sailed on the Balclutha when she was Star of Alaska.



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Balclutha interpreter's
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